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ABSTRACT

The off-season football strength training and conditioning program at the University of Miami was developed to emphasize commitment and continued intensity of effort on the part of the individual player. The program emphasizes the intrinsic rewards of physical conditioning, positive reinforcement for effort, and individual responsibility for physical conditioning. All program aspects are described in this report: (1) basic routines; (2) strength evaluation objectives; (3) program objectives; (4) training methods; (5) training equipment; (6) principles for the exercises; (7) use of equipment; (8) exercises for specific muscle groups; (9) the running program; (10) agility drills by positions; (11) rules for exercises; (12) agility and cardiovascular evaluation; and (13) establishing individual strength goals. Exercises are illustrated and sample evaluation charts are included. (JD)

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UNIVERSITY OF MIAMI
HURRICANE FOOTBALL TEAM
OFF-SEASON STRENGTH TRAINING PROGRAM

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SP 025 273

MIAMI FOOTBALL TEAM

OFF-SEASON STRENGTH TRAINING AND CONDITIONING PROGRAM

INTRODUCTION

The master plan philosophy of the Miami Hurricane Football Team's Off-Season Strength Training and Conditioning Program was developed in 1979, perpetuating the primary philosophy of the football program. The philosophy, "courage, commitment, and continued intensity of effort on the part of each player", is the only means by which success will be achieved on the football field. This philosophy originates from Coach Howard Schnellenberger, to his assistant coaches, support staff, and finally to the individual player.

Consequently, the off-season strength training and conditioning program was designed to continue the ultimate philosophy of the football program. The objective of this paper is to examine the design and function of our off-season strength training and conditioning program. This paper illustrates our philosophies into the psychological and physiological aspects of the two programs. One, the player is taught the importance of the intrinsic reward of physical conditioning. Two, positive reinforcement must be demonstrated on our part to any player who is trying to improve physically. Thirdly, we must provide the player with as much responsibility as possible for the development of his physical conditioning program and his consistency to train. Physiologically, the two primary aspects of the strength training and conditioning program are consistent intensive training and the need for variety in the training routine.

As strength coaches we each develop our particular strength training methods and philosophies. Consider Dan Riley, formerly of Penn State and presently with the Wasington Redskins. He believes in momentary muscular failure, using a slow speed of muscular contractions. At the other end of the spectrum we have Dana Leduc at the University of Texas, who uses multiple sets at an explosive speed of muscular contraction. Then there is Bill Starr, author of The Strongest Shall Survive-Strength Training for Football. He believes"...free weights, when used properly, are still the "best" method of gaining strength."[1], whereas another strength coach will believe in only using machines. Please read this paper with an understanding mind, as we are reflecting on our opinions and philosophies, and in no uncertain terms do we claim to know it all or to have the best off-season strength training and conditioning program.

We do hope you find something of interest that will eventually help to make your present program more effective.

MIAMI HURRICANES OFF-SEASON STRENGTH TRAINING PROGRAM

Preparation of the Off-Season Strength Training Program

The preparation of the off-season strength training program begins immediately upon the completion of the football season but before the players leave for their short vacation prior to the bowl game. Signs are posted in the locker room and training table informing the players that they must come see Coach Ganong in order to set-up their off-season strength training program. At that time the player and Coach Ganong will design the first week's program. card, and take body measurements in inches at the neck, chest, waist, hips, thigh, calf, bicep relaxed and flexed, and the forearm. The limb measurements are taken on the dominant side of the player's body. These girth measurements are taken to observe where changes in the body dimensions occur as a result of their strength training. If a player gains body weight we want to know where the body weight went on the player's body.

During this meeting the player and Coach Ganong will establish strength goals for the eight different strength evaluation exercises that will be done in late February (more about the strength evaluation process later on in the paper). By the time the team is excused to leave for their short pre-bowl vacation, each player will have prepared their program card that will be used after the bowl game when they return for the spring semester.

Objectives of the Off-Season Strength Training Program

These are four objectives of the off-season strength training program. The primary objective obviously is to increase the overall strength of the player within his genetic potential. The second objective is to improve the players flexibility, third, to retain a high percentage of a player's cardiovascular fitness,and fourth, to retain some percentage of the player's position agility. By that we mean quarterbacks throw the ball occasionally and wide receivers will run patterns and catch the ball. Defensive backs will cover receivers and practice their drops. Running backs run pass patterns and take handoffs. Offensive linemen practice pass protection and pulling drills. Defensive linemen practice rip and swimming techniques. Kickers kick the ball, and linebackers practice their drops and cover backs out of the backfield. All of these drills are done voluntarily and are under no direct supervision of a football coach.

Designing the Strength Program

Philosophical Design of the Off-Season Strength Training Program

The philosophical design of the players off-season strength training program is based upon the importance of increasing the player's overall body strength, and applying the player's increase in overall body strength to his particular position skill drills. We believe, as Dr.Wayne Westcott, author of Strength Fitness, "The better approach for improving skills is to do strength training for increased muscular power, and technique training for better speed and conditioning."[2]

Since our philosophy about strength training centers around the individual, a player chooses any exercises he chooses to do for a given set of muscle groups. Each player must perform a parallel squat, bench press, seated military, chins, dips, and bent knee sit-ups somewhere in his routine. The player must perform these exercises since he will be evaluated on these movements later.

The player may choose to train three days a week or a split routine of four days a week. We know the player must train at least three days a week because studies by Hooks and O'Shea prove that three days a week of training a given set of a muscle groups produce the best gains in muscular strength. 3,4

Finally in the philosophical design of the player's routine there are no olympic style exercises being performed. We do not believe olympic style exercises help a football player to become a better football player by making him any more explosive, powerful, or stronger than any other exercise. Only if a player requests that he be taught how to do olympic style exercises will we put that type of exercise into his routine. We have found that even after proper technique is taught and proper supervision is provided, olympic style exercises have produced the highest percentage of lower back and related muscuskeletal injuries compared to any other exercise for football players. We do not believe the player is being deprived of becoming a better football player by not doing olympic style exercises. If unbiased research can prove that olympic style exercises are more productive for a football player, without the high potential for injury, then we will put them into the player's routine.

Organizational Function of the Off-Season Strength Training Program

A player knows he must strength train no less than three days per week. The player also knows he cannot train the same muscle groups on back to back days. He can train any three days during the week that he chooses. The strength room is open six days a week, Monday through Friday, 8:30 AM until 6:30 PM, Saturday 11:00 AM until 2:00 PM. The player may come in anytime during the day he chooses. If a player cannot make it in to the strength room during the normal operating hours, then we'll make arrangements for him to get into the room with supervision at some other time of the day. We do not believe group strength training is beneficial for the player who needs to strength train with the highest degree of mental intensity. The player who cannot get stronger and potentially bigger for no other reason other than lack of genetic potential, would fall into this category. The players on the team that are motivated by training with a large group of players can train when a group of his peers are in the room.

The player enters the strength room, picks his program card out of the program box, then he picks up a clipboard and pencil, stretches out, trains, replaces the card, clipboard, and pencil, re-stretches (if he wants to), and leaves the strength room. This is how the off-season strength training program functions.

Principles of the Off-Season Strength Training Program

Duration - Once the player returns for the spring semester, he then has six to eight weeks of strength training. The six to eight week period is sufficient time to produce a strength increase in the body. DeLorme found this to be a sufficient period of time to produce strength gains using isotonic equipment.[5] Likewise using isokinetic equipment , a six to eight week period will produce strength increases.[6]

Overload - We adapt the player's muscle to additional demands by increasing the amount of resistance for an exercise once the required number of repetitions have been attained for the number of sets the player is performing. The overload is never more than ten pounds for an exercise. Experience has shown us that a player hates to make a five pound increase for an exercise. The player is never allowed to make an arbitrary increase in weight for an exercise. Unless he is beginning a new exercise, starting his program the first week or the resistance is ridiculously light for an exercise, then he might increase the resistance. Overload for an exercise is also accomplished by a systematic method called cycling. The cycling of an exercise requires the player to use a prescribed amount of resistance each week for a cycled exercise. The player is required to attempt the resistance each week, and failure to perform one repetition will result in adjusting the player's cycle. We use the cycling method for the three evaluation exercises, the parallel squat, bench press and seated military. Cycling is done for these exercises only because the player uses those three exercises to evaluate for one repetition maximum. A cycle routine uses a percentage of resistance from a previous maximum resistance. Starting from a lower percentage, each week the percentage of the maximum resistance increases until near the end of the cycle the player is using 100% of the previous maximum resistance. This method adapts the mind and body to eventually handling resistance for one repetition maximum. Below is an example of the cycle routine a player will use. We get the percentage breakdown from the Vladimir Milhailovic Zaciorskij Table of Percentages for a number of repetitions of 1 repetition maximum resistance:

Cycle Period of 6 Weeks

1st week	75%	of 1 RM	10 Reps
2nd week	80%	of 1 RM	8 Reps
3rd week	85%	of 1 RM	6 Reps
4th week	90%	of 1 RM	4 Reps
5th week	95%	of 1 RM	2 Reps
6th week	100%	of 1 RM	1 Rep

Repetitions - There are a variety of repetition routines the player may use in his workout. Regardless of his choice in repetitions the range of those repetitions falls well within the prescribed number of repetitions that will produce maximum strength gains. Isotonic and isokinetic repetition studies indicate the range of repetitions between four to eight will produce gains in muscular strength.[7,8,9,10] The highest number of repetitions our players ever perform for an exercise is ten. Of the variety of multiple set routines the players experiment with, they enjoy the pyramid program of more weight and less reps, commonly 8, 6, 4, 4, 6 repetition scheme.[11] The other is the Berger Program of more weight per set, keeping the repetitions the same for each set. Typically the players like repetitions of 5, 6, or 8.[12]

Over the past six years, we have experimented with the number of repetitions that produce the best possible strength increase when training an exercise one set to momentary muscular exhaustion. Nautilus Sports/Medical Industries advocates eight to twelve repetitions.[13] We have found a range of six to ten repetitions ideal.

Set(s) - The player never performs more than three sets of near maximal resistance for any exercise. This does not count warmup sets. Research on isotonic and isokinetic equipment has shown that more than three sets are not worth performing.[14-15] We also require that during the off-season strength training program that one training session during the week be one set to momentary muscular exhaustion. The effectiveness of this training is predicated on supervision. Therefore, to train seventy-five players at least once a week, each player turns into Coach Ganong a piece of paper. On that paper the player puts down his preferred day to train "High Intensity", (our term for this type of training). We also ask that the player put down when he is free from classes. Therefore, we can schedule each player a day and time to train with Coach Ganong for "High Intensity". Players on a split routine train "High Intensity" twice during the week. In our opinion this form of training is extremely productive, but the key to the program's effectiveness is supervision but not player supervision, graduate assistant supervision, or student helper supervision. The supervising individual must be an authority figure in the strength room, the strength coach or the assistant strength coach. All of the players just do not push themselves hard enough to make "High Intensity" training effective. We know some schools teach their players how to train each other to a point of momentary muscular exhaustion. In our opinion that is not as effective as the strength coach or the assistant strength coach training the players individually.

In as much as we realize the necessity for creating variety of training in a player's routine, we have combined multiple set training with momentary muscular exhaustion training. Whether it is the combination of the two routines, the change in the routine, the direct supervision, or all of these factors, this routine has produced excellent increases in muscular strength.

We have the player do one exercise for a muscle group using the multiple set routine. Then the player will do one or two totally different exercises for the same muscle group to momentary muscular exhaustion. Only one exercise of multiple sets is done in any one day. The exercises most frequently performed using multiple sets are the parallel squat or the bench press.

Rest Between Sets - The players rest between sets at least one minute but no more than three minutes. The amount of time a player rests depends upon the intensity of the previous set.

Rest Between Exercises - Rest between exercises of the same muscle group is no less than one minute and no more than three minutes.

Recovery Between Workouts - The player must rest a directly stimulated muscle group at least forty-eight hours. We have found that the player who trains with extreme intensity requires a longer recovery period of up to ninety-six hours.

Order of Training Muscle Groups - The player always trains larger to smaller muscle groups.16 We always alter the order of muscle groups being trained to overcome mental staleness and physical plateaus. Here are the three types of routines the players use most frequently:

1. Largest muscle group of the lower body then largest muscle group of the upper body.

2. Largest muscle group of the lower body then the next largest muscle group of the upper body and so forth.

3. Largest to smallest muscle group of the lower body then largest to smallest muscle group of the upper body.

Speed of Movement - We tell the player doing any exercise to raise and lower the resistance under complete muscular control. The player never bounces or jerks the movement in any exercise.

Amount of Training Time - A player's multiple set routine never exceeds one hour and thirty minutes. The momentary muscular exhaustion training routine never exceeds thirty minutes.

Training Partners - The key to our strength program is individual supervision. When a player trains his supervision is provided by a fellow player (least productive), graduate assistant (more productive), or myself. The player needs positive training motivation, spotting, and reinforcement of proper exercise technique.

Program Card - The player must use his program card each and every time he trains. If a player trains and does not use his card the workout doesn't count. All the player has to do is write in the number of repetitions he completes for a set of an exercise. We prepare his program card for each workout. Every morning is spent looking at program cards and writing in the next workout. The card tells us when a player is beginning to reach a muscular plateau, when a player is writing in an exercise and not doing an exercise, how to alter a player's training routine to create that variety in training. We also can tell when a player is creating a muscular inbalance by training one set of muscles and not the other sets of muscle groups.

Warm-up Stretch Routine

Each player stretches out before training. During "High Intensity" training, the player also stretches out after the workout. One to two stretches are done for the shoulders, lower back, thighs, and hip flexors. Each stretch is done statically and each stretch is held for no less than 10 seconds.

General Strength Training Routines

Every player has a different strength training routine. After researching the program cards these are examples of some of the common factors to every player's routine:

- Stretching before the workout.
- Training every major muscle group of the body. This is done to prevent "disproportionate development in any style muscle group."
- Every player will perform a parallel squat, bench press, and seated military, at least once in the week.
- Each player will train "High Intensity", at least once a week

BASIC GENERAL THREE DAY ROUTINE

MONDAY

EXERCISE	MUSCLE GROUPS
1. Barbell Squat	Hips, Lower Back, Legs
2. Barbell Bench	Chest, Anterior Shoulders, Arms
3. Leg Extension Machine	Thighs
4. Barbell Seated Military	Shoulders, Arms
5. Leg Curl Machine.	Hamstring
6. Pulldown Machine.	Upper Back, Elbows, Flexons
7. Hyper-Extension Machine	Lower Back
8. Dumbbell Curls.	Biceps
9. Standing Pushdowns High Latt Machine.	Triceps
10. Bent Knee Sit-Ups	Abdominals
11. Neck, Neck Machine.	Neck

WEDNESDAY (High Intensity)

1. Leg Press Machine	Hips, Lower Back, Legs
2. Leg Extension Machine	Thighs
3. Leg Curl Machine.	Hamstring
4. Incline Press Barbell	Chest, Anterior shoulders, Arms
5. Pullover Machine.	Upper Back
6. Lateral Raise Machine	Shoulders
7. Hyper-Extension Machine	Lower Back
8. Bicep Curl Machine.	Biceps
9. Tricep Extension Machine.	Triceps
10. Inverted Crunches	Abdominals
11. Manual Neck	Neck

FRIDAY

EXERCISE	MUSCLE GROUPS
1. Barbell Bench.	Chest, Anterior Shoulders, Arms
2. Barbell Squat.	Hips, Lower Back, Legs
3. Behind the Neck Press.	Shoulders, Arms
4. Leg Extension Machine.	Thighs
5. Pull-ups on a Bar.	Upper Back
6. Leg Curl Machine	Hamstrings
7. Standing Rotations	Obliques
8. Standing Barbell Curl.	Biceps
9. Lying Tricep Extension Barbell	Triceps
10. Roll-ups	Abdominal
11. Neck, Neck Machine	Neck

This is only an example of a three day routine for one of our players. There is no emphasis on any specific muscle group weakness in this general routine. The amount of work done for a specific muscular weakness varies from one player to another player. The order of exercises, set or sets, range of reps, and type of exercise also varies from one player to another player.

BASIC GENERAL FOUR DAY ROUTINE

MONDAY (High Intensity)

EXERCISE	MUSCLE GROUPS
1. Barbell Squat	Hips, Lower Back, Legs
2. Leg Extension Machine	Thighs
3. Leg Curl Machine	Hamstrings
4. Barbell Seated Military	Shoulders, Arms
5. Barbell Shoulder Shrug	Trapezious
6. Barbell Bicep Curl	Bicep
7. Hyper-Extension Machine	Lower Back
8. Bent-Knee Sit-Ups	Abdominals

TUESDAY (High Intensity)

1. Barbell Bench Press	Chest, Anterior shoulders, Arms
2. Barbell Incline Press	Chest, Anterior shoulders, Arms
3. Pull Down Machine	Upper Back, Elbow Flexors
4. Pull Over Machine	Upper Back
5. Standing Pushdowns High Latt Bar Machine	Triceps
6. Weighted Dips	Chest, Anterior shoulders, Triceps
7. Neck Machine	Neck

THURSDAY

1. Barbell Squat	Hips, Lower Back, Legs
2. Barbell Seated Military	Shoulders, Arms
3. Leg Extension	Thighs
4. Barbell Shoulder Shrugs	Trapezious
5. Leg Curl Machine	Hamstrings
6. Barbell Bicep Curl	Biceps
7. Hyper Extension Machine	Lower Back
8. Bent Knee Sit-ups	Abdominals

FRIDAY

EXERCISE	MUSCLE GROUPS
1. Barbell Bench Press	.Chest,Anterior Shoulders,Triceps
2. Dumbbell Incline Press	.Chest,Anterior Shoulders,Triceps
3. Pullover Machine	.Upper Back
4. Pull-up on a Bar	.Upper Back, Arms
5. Close Grip Bench Press	.Chest, Anterior Shoulders, Triceps
6. Standing Pushdowns High Latt Bar	.Triceps
7. Neck Machine	.Neck

This is a general four day routine. The shoulders are typically done on leg days to provide the shoulders with more stimulus. The shoulders are indirectly involved in many chest exercises and have hence the shoulders become slightly fatigued before they are directly stimulated. If a player is weak in the chest, tricep area, those muscles are trained on Monday and Thursday, instead of Tuesday and Friday. We have found no problems with the squat movement if the upper back is performed the day before the squat. Wednesday is an off day.

Strength Evaluation Process

Strength Evaluation Objectives

Obviously the primary objective of the evaluation process is to assess the player's increase in flexibility, muscular strength, muscular endurance, and leg power. The off-season strength training program does not include the evaluation of a player's speed,agility or cardiovascular development. Those components of the player's athletic ability are evaluated in the August evaluation and not during the February evaluation. The athlete will improve and develop his speed, agility, and cardiovascular system during the off-season conditioning program.

We realize the importance of improving all areas of a player's physical condition. As Ken Kontor said, "Strength is only one component of athletic conditioning, there are many other factors; speed, agility, flexibility, cardiovascular and muscular endurance and power, which make an athlete an athlete"19 The evaluation process is considered as a means to many ends and not as an end in itself. Here are eleven secondary objectives of our evaluation process:

1. Provide the player with a clear cut purpose to train.
2. Develop the motivation for the player to train.
3. Evaluate if a player is actually training or filling in his program card.
4. Provide the head coach and assistant coaches with feedback on the player's physical condition and willingness to improve as a player.
5. Determine an objective and subjective evaluation of a team's overall strength increase.
6. Help to build a player's self-esteem that will be carried over onto the football field.
7. Prevent and foresee injuries.
8. Enable a player to identify his own weaknesses.
9. Evaluate the player's improvement in flexibility, muscular strength, endurance, and leg power.
10. Collect data for research.
11. Evaluate the strength coaches effectiveness to increase a player's strength level each evaluation period.

Function of Strength Evaluation Process

Following the six to eight weeks of strength training the player is asked to transfer his strength attained to various exercises used to measure power, muscular strength, and muscular endurance. In order for the player to properly prepare his mind and muscles for the evaluation day, he will have a mini evaluation day one week before he formally evaluates. This mini evaluation prepares the athlete for eventual evaluation. This method applies one of the fundamental principles of strength training, the Principle of Training Specificity.18

The week before evaluation a bulletin is posted in the locker room and in the training room informing the player how to prepare and train during the week of evaluation. The sign states:

1. If the player evaluates Monday, train Wednesday, and Friday.
2. If the player evaluates Tuesday, no training until evaluating, then train Thursday and Saturday.
3. If the player evaluates Wednesday, train light Monday, then Friday.
4. If the player evaluates Thursday, train lightly Tuesday, and Saturday.
5. If the player evaluates Friday, train Monday, and light Wednesday.

Every player must train two other days besides the evaluation day. There will be no split routines the week of evaluation. When a player evaluates, all evaluating exercises must be completed the same day. The player is allowed plenty of recovery time between evaluation exercises. On the evaluation day chosen by the player, the player enters the strength room and picks up his program card. The program card will tell him the order of the evaluation exercises, and how to warm-up to his maximum resistance for the parallel squat, bench press, and seated military. After the player picks up his card, he stretches out and does the evaluation exercises in this order.

1. Vertical Jump - Leg power-3 attempts.
2. Sit and reach - 3 attempts - measured in inches.
3. Bench press - chest, shoulders, triceps muscular strength- 1 repetition-maximum 3 attempts.
4. Parallel squat - hips, lower back, leg muscular strength- 1 repetition-maximum 3 attempts.
5. Seated Military - shoulders, arms muscular strength, 1 repetition-maximum 3 attempts.
6. Pull-ups - upper back, elbow flexor muscular endurance- max repetitions 30 seconds- 1 attempt.
7. Dips - chest, shoulder, triceps muscular endurance -max repetitions 30 seconds - 1 attempt.
8. Bent-knee sit-ups - abdominal muscular endurance - max repetitions 60 seconds - 1 attempt.

During the off-season strength training period there is no evaluation of a player's agility, speed, or cardiovascular development.

OFF-SEASON CONDITIONING PROGRAM

Objectives of the Off-Season Conditioning Program

The primary objective of the off-season conditioning program is to get a player in shape for spring football. The player begins this program four weeks before spring ball begins. Dr. Arlette Cohen, exercise physiologist at the University of Miami said, "Four weeks of high intensity can improve the condition of an individual."[20] To accomplish this objective we improve the anaerobic condition of the player's body. Since 90% of the energy used to play football comes from the ATP-PC energy system, and 10% of the energy used comes from the LA-02 energy system, the player must condition the body to efficiently utilize these two energy systems.[21] The second objective of the off-season conditioning program is to improve the player's agility. The player's ability to combine speed, strength, reaction, balance, and coordination is essential on the football field. The third objective of the off-season conditioning program is to improve the player's neuromuscular coordination. This is reflected by the ability of the player to perform his position skills with a smooth, balanced and fluid motion.[22] The program uses as many skills that a football player might experience on the football field.

Elements of the Off-Season Conditioning Program

The conditioning program is composed of four elements that formulate the guts of the program. The player performs physical activities that elevate his heart rate to at least 80% of his maximum heart rate. The duration of the program is forty to sixty minutes long. The frequency of player training sessions are three days a week, typically Monday, Wednesday, and Friday. The overload to the training sessions is provided by increasing the number of repetitions the player performs for an exercise per day.

Organizational Function of the Off-Season Conditioning Program

The program begins by dividing the team into eight groups of no more than ten per group. The player must know his group number. The player then arrives at the field house at 3:15 PM. He changes and comes out to the field to stretch. After he stretches, a whistle blows and he runs to one of the eight different stations. The first day the groups go to their respective numbered station. Group one to station one, group two to station two and so forth. Following each training session the groups move up one station so that each group does not start at the same exercise each day. For example, day two group one starts at station two, group two starts at station three, and so forth. After completing each station, the player re-stretches and goes in to shower and go home. This conditioning program is available to the student body if they wish to participate. The football players are not allowed to wear football cleats.

The Design of the Conditioning Program

This is an interval-circuit training program developed in the Scandinavian countries.[23] There are a total of eight different stations. A football coach supervises a station and the coach may do any type of activity at his station so long as the activity is keeping with the type of station he is at. For example; one of the stations is a cone station. The coach may do any drills at his cone station, so long as the coach uses the cones.

Each station is five minutes long, and the players must keep moving as much as possible during the five minutes. There is to be as little standing around as possible. At the end of the five minutes of training the whistle sounds again. The whistle tells the groups to rotate to the next station. Once the group reaches the station, the coach is to begin his exercises. Each group will rotate to all eight station.

Here are the eight stations.

1. 440 yard run and rope jumping
2. Ground drills
3. 20-40 yard form run and sprint drills
4. Cone drills
5. Ropes and bags
6. Dot drills
7. Medicine ball drills
8. Shuttle-run drills

CONCLUSION

Thank you for taking the time to read our Annual Off-Season Strength Training and Conditioning Program. I sincerely hope that this information will benefit your present strength training and conditioning program.

As strength coaches we truly understand that strength training is not an exact science. There exists such a tremendous amount of controversy surrounding our profession with regard to strength training methods, exercises, equipment, and principles. We need not fear this confusion, because I sincerely believe that science, with all its technology, will provide us with the answers for which we are searching. In my opinion it is not the methodology but its application that is the key to a successful strength training program.

During the six years at Miami I've met strength coaches from all over the nation. I know for a fact that there are many strength programs far better than ours. The success of these programs,as I see it, is the effective application of the program to the player. Unfortunately we never hear about these programs because the schools cannot recruit genetically gifted players which do help produce winning teams year in and year out.

The greatest lesson I have learned as a strength coach is never to equate a successful strength program with a win-loss record of the school.

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UNIVERSITY OF MIAMI

SPRING-BALL STRENGTH TRAINING PROGRAM

OBJECTIVES - MAINTAIN - REHABILITATE - BUILD

SPECIFIC OBJECTIVES:

A. Athletes maintain 80% of 1 RM on all lifting exercises.
B. Athletes maintain an average strength level for their body weight.
C. Injured athletes strengthen injured muscle groups when capable.
D. Athletes unable to participate during spring ball, continue to build, and strengthen their injured muscle groups.

STRENGTH TRAINING PROGRAM:

A. All athletes train two days a week.
B. Exercise the larger muscle groups of the body.
C. Days of training are done on the non-practice days.
D. At seasons end all players must see Coach Ganong in order to set up the summer's strength training program, and set strength goals.

UNIVERSITY OF MIAMI

SPRING-BALL STRENGTH TRAINING PROGRAM

THE SPRING BALL STRENGTH TRAINING PROGRAM IS DESIGNED TO MAINTAIN AN ATHLETES STRENGTH AT A SATISFACTORY LEVEL DURING SPRING FOOTBALL. THIS CUTS DOWN INJURIES DURING SPRING BALL.

IT IS IMPORTANT THAT EACH ATHLETE CONDITION THE MAJOR MUSCLE GROUPS OF THE BODY, AND NOT JUST A FEW OF THE MUSCLE GROUPS THAT ARE USED IN PLAYING A CERTAIN POSITION.

THE TRAINING PERIOD IS ONE HOUR, TWICE A WEEK ON NON-PRACTICE DAYS.

THE STRENGTH TRAINING MODE IS A HIGH INTENSITY PROGRAM, AND FOR A POWER PROGRAM. THIS TIME OF THE YEAR DIFFERS FROM THE REGULAR IN-SEASON PROGRAM, BECAUSE THE PLAYERS HAVE MORE TIME TO TRAIN. THEREFORE DURING SPRING BALL THE PLAYERS HAVE TIME TO DO MORE EXERCISES, WEIGHT, AND SETS.

EACH ATHLETE WILL USE HIS PROGRAM CARD.

SUMMER STRENGTH TRAINING PROGRAM

OBJECTIVES: OPTIMIUM TO BUILD, REFINE, AND REHABILITATE

SPECIFIC OBJECTIVES:

A. Athletes return to camp capable of performing the goals established for them in April, above average strength level for their body weight

B. Athletes strengthen the weak areas of their bodies, to prevent injury.

C. Improve cardiovascular system.

D. Increase speed, agility, improve individual skills.

SUMMER PROGRAM:

A. Summer program sent to the freshmen athletes.

B. Athletes train heavy and hard during the summer months. Cycle parallel squat, bench press, and seated military.

C. Integrated running program is used to increase the athletes cardiovascular condition.

The summer strength training program is put together in April for every upperclassman. It is the responsibility of each athlete to see Coach Ganong before leaving to go home.

When the athletes sit down with Coach Ganong they establish strength goals. You will read in detail later on in this booklet about what strength goals are all about.

The strength program is designed with the type of equipment available to the athlete during the summer. The program itself is catered to the particular needs of the athlete. The cardiovascular and speed training are discussed at this time as well.

Experience has proven that it is ridiculous to send summer workout schedules to upperclassmen. Every summer the material is 99% the same, and it isn't worth the effort or money to send material that will be tossed in the trash can. We also do not require program cards sent back. Evaluation day will be proof of the training.

Our freshmen pose a different situation altogether. A summer strength training program is sent to them, along with a cardiovascular, and speed training schedule. The strength training program explains basics only. They are informed that they will be evaluated, and that they should try to train accordingly. We do not expect a lot out of their strength evaluations. Many of these athletes have very poor or no facilities to train at. We do expect top cardiovascular training.

During the summer we try to phone each player twice. This shows our athletes we care about them being in top physical condition.

HURRICANES STRENGTH TRAINING METHODS

HURRICANE TRAINING METHODS

This chapter will cover the strength methods used by our football players to develop their strength. The summer section (which is discussed later in the chapter) in the book covers one of the strength training methods separately.

There are four different strength methods our players can use to develop their strength. The players may use one method of training or a combination of the four methods. We teach our athletes these various methods of strength development. They then can train using any method they enjoy. We do require during the off-season that all of our players use two of the methods. Those two methods will be covered later on in the book.

THE TRAINING PROGRAM OF HIGH INTENSITY

HIGH INTENSITY TRAINING INVOLVES TAKING A CERTAIN GROUP OF MUSCLES AND USING A HEAVY RESISTANCE TO FATIGUE THAT GROUP OF MUSCLES. THE NUMBER OF SETS USED TO DO THIS WOULD BE ONE, MAYBE TWO SETS AT THE ABSOLUTE MOST. THE NUMBER OF REPETITIONS ARE BETWEEN 6-8 FOR THE UPPER TORSO, AND 8-10, FOR THE LOWER TORSO. WHEN TALKING ABOUT FATIGUING A GROUP OF MUSCLES, IT MEANS THAT THE PERSON DOING THE LIFTING COULD NOT PERFORM ONE MORE REPETITION IF HIS LIFE DEPENDED UPON IT.

HIGH INTENSITY STRENGTH TRAINING REQUIRES A SPOTTER TO ASSIST IN PUSHING THE TRAINEE TO THE MAXIMUM. ALSO, THE SPOTTER ACTS AS A HELPER. THERE ARE TWO MOTIONS TO AN EXERCISE, THE LIFTING, (POSITIVE CONTRACTION) AND THE LOWERING (NEGATIVE CONTRACTION) OF A WEIGHT. ONCE OR TWICE A WEEK THE TRAINEE DOES WHAT IS KNOWN AS NEGATIVES. ONCE THE TRAINEE CANNOT LIFT THE WEIGHT WITHOUT VIOLENTLY JERKING THE WEIGHT, THE SPOTTER LIFTS THE WEIGHT UP SO THAT THERE ARE NO JERKS OR BOUNCES DURING THE LIFT. USE NO MOMENTUM TO LIFT THE WEIGHT, JUST THE STRENGTH OF THE MUSCLE GROUP. WHEN LOWERING THE WEIGHT, EVEN BEFORE NEGATIVES ARE DONE, IT IS RECOMMENDED THAT THE TRAINEE LOWER THE WEIGHT A LITTLE SLOWER THAN THE LIFTING IT UP. THE LOWERING OF THE WEIGHT HAS PROVEN TO BE VERY BENEFICIAL FOR INCREASING STRENGTH.

AS FAR AS THE NUMBER OF NEGATIVES TO PERFORM, AFTER ALL THE POSITIVES HAVE BEEN COMPLETED, THE NUMBER OF NEGATIVES WILL BE FEW, MAYBE 4. THE MORE MUSCLE CONTROL IN DOING THE NEGATIVES THE FEWER THE NUMBER OF NEGATIVES WILL BE DONE. IT IS IMPORTANT TO LOWER THE WEIGHT SLOWLY WHILE DOING NEGATIVES. ABOUT 4 SECONDS OR MORE IS RECOMMENDED. ONCE THE WEIGHT DROPS WITHOUT ONES ABILITY TO CONTROL THE DOWNWARD MOVEMENT FOR AT LEAST 2 SECONDS, STOP.

THERE ARE ALSO REPETITIONS KNOWN AS FORCED REPETITIONS. THOSE REPETITIONS ARE PERFORMED DURING THE POSITIVE PORTION OF A LIFT. DURING THE LAST COUPLE OF REPEPTITIONS THE TRAINEE WILL EXPERIENCE A STICK POINT IN THE LIFT, AND A LITTLE HELP BY THE STOPPER WILL HELP THE TRAINEE FINISH A FEW EXTRA BENEFICIAL REPETITIONS. IT IS RECOMMENDED THAT THE TRAINEE NOT COUNT THE FORCED REPS AS PURE POSITIVE REPETITIONS.

THE TRAINEE SHOULD NEVER REST MORE THAN 60 SECONDS BETWEEN THE DIFFERENT EXERCISES. THE TRAINEE SHOULD NEVER TRAIN EVERYDAY. ALLOW 48-72 HOURS REST BETWEEN TRAINING DAYS. THE TRAINEE CAN REST BETWEEN MUSCLE GROUPS. AS ONE GETS USED TO THIS TRAINING, REST TIME WILL BE LESS.
IT DOESN'T MATTER WHETHER A TRAINEE USES, FREE WEIGHT, UNIVERSAL, OR NAUTILUS EQUIPMENT. YOU CAN USE ANY OF THE THREE, OR ANY COMBINATION OF THE DIFFERENT EQUIPMENT.

ADDING WEIGHT WHEN TRAINING HIGH INTENSITY

ADD WEIGHT WHENEVER AN EXERCISE GETS TO THE MAXIMUM OF 8 REPS ON THE UPPER BODY, AND ADD WEIGHT WHEN THE REPETITIONS GET TO MAXIMUM 10 FOR THE LOWER TORSO. THE AMOUNT OF WEIGHT ADDED SHOULD NEVER BE LOWER THAN 2½ LBS FOR ANY SET.

HIGH INTENSITY TRAINING ONLY WORKS IF THE TRAINEE WORKS HARD, HEAVY AND BRIEFLY. IT IS IMPORTANT TO WORK EACH MUSCLE TO A POINT OF MOMENTARY MUSCULAR EXHAUSTION. DO NOT HOLD BACK ON ANY MUSCLE GROUP.

THE EXERCISES TO DO: FREE WEIGHT

*1) SQUAT, ½ OR FULL, BARBELL
2) DEAD LIFT, BARBELL
*3) BENCH PRESS, BARBELL
4) INCLINE PRESS, BARBELL ON AN INCLINE BENCH
5) FLYS, DUMBBELLS, ON A FLAT OR INCLINE BENCH
6) LATERAL RAISES, DUMBBELL, SITTING
*7) MILITARY PRESS, BARBELL
8) SHOULDER SHRUGS, BARBELL
*9) TRICEP EXTENSION, DUMBBELL
10) BICEP CURL, DUMBBELL INCLINE BENCH, OR SITTING
11) TOE RAISES, BARBELL
12) SIT-UPS
*13) NECK ISOMETRICS, PARTNERS OR YOURSELF

* MANDATORY EXERCISES

NAUTILUS EQUIPMENT:

* 1) HIP & BACK
* 2) LEG EXTENSION
* 3) LEG CURL
* 4) PULLOVER
* 5) DOUBLE CHEST
* 6) DOUBLE SHOULDER
* 7) NECK AND SHOULDER
* 8) BICEP/TRICEP MACHINE
  9) COMPOUND LEG MACHINE, TOE RAISES
*10) 4-WAY NECK
*11) SIT-UPS

* MANDATORY EXERCISES

UNIVERSAL EQUIPMENT

* 1) LEG PRESS
  2) LEG EXTENSION (IF AVAILABLE)
* 3) LEG CURL (IF AVAILABLE)
* 4) HIGH LATT
  5) LOW LATT
* 6) BENCH PRESS
* 7) SHOULDER PRESS
* 8) BICEP CURL (USING LOW LATT CABLE)
* 9) TRICEP EXTENSION (USING HIGH LATT CABLE)
 10) DIPS (ON DIP BAR)
 11) SIT-UPS (INCLINE BOARD)
*12) NECK (ISOMETRICS, PARTNERS, OR YOURSELF)

* MANDATORY EXERCISES

IT IS POSSIBLE TO USE ALL THREE TYPES OF EQUIPMENT, BY TRAINING A MUSCLE USING A DIFFERENT PIECE OF EQUIPMENT.

CYCLE WEIGHT/REPETITION PROGRAM

AN EXERCISE ROUTINE IS TURNED INTO A HEAVY, MODERATELY HEAVY, AND LIGHT LIFTING ROUTINE. THE ATHLETE DOES A 1 REPETITION MAXIMUM (RM) FOR THE PARALLEL SQUAT, BENCH AND SEATED MILITARY BEFORE THE START OF HIS CYCLE ROUTINE. ONCE THE ATHLETE HAS A FAIR JUDGEMENT OF THE AMOUNT OF WEIGHT THAT CAN BE LIFTED ON EACH EXERCISE ONE TIME THE ATHLETE THEN DETERMINES HOW LONG TO CYCLE EACH EXERCISE.

THE CYCLE ROUTINE IS USED TO ALLOW FOR RECOVERY FOR EVER INCREASING LOADS TO THE BODY. THIS IS DONE BY MAXING OUT AS STATED EARLIER AND ESTABLISHING THE PERIOD OF TIME TO CYCLE IN. THE TIME PERIOD IS USUALLY DETERMINED BY COMPETITION. IN OUR CASE THE CYCLE IS SET UP TO PEAK DURING EVALUATION DAY, APPROXIMATELY EIGHT WEEKS FROM THE SETTING UP OF THE PROGRAM.

CYCLING CAN BE ESTABLISHED THIS WAY. AFTER MAXING OUT, ESTABLISH HOW MANY DAYS A PARTICULAR EXERCISE WILL BE DONE. ONE, TWO, OR THREE TIMES A WEEK. THE WEIGHT TO BE USED THE FIRST WEEK IS APPROXIMATELY 60-65.THE FINAL WEEK 100 PERCENT OF THE 1 RM IS USED. THIS MEANS AS WEEKS GO BY RESISTANCE IS EVER SO SLIGHTLY INCREASED AND REPETITIONS DROP. AT NO TIME SHOULD MAXIMUM SINGLES BE PERFORMED. HEAVY SINGLES CAN BE DONE, BUT THEY SHOULD BE DONE USING 95-100% OF ONE"S WEIGHT TWO WEEKS BEFORE MAXING OUT. THIS PROCEDURE PREPARES THE BODY AND MIND FOR EVALUATION DAY.

ONE NOTE ABOUT HOW OFTEN TO DO THE EXERCISES. THE STRONGER THE ATHLETE GETS THE LESS OFTEN THE EXERCISE SHOULD BE PERFORMED. REMEMBER THE STRONGER AN ATHLETE GETS THE LONGER IT TAKES FOR THE ATHLETE TO FULLY RECOVER.

AS FAR AS SETS ARE CONCERNED, MOVEMENTS WITH HEAVY WEIGHTS CAN ONLY BE MAINTAINED BETWEEN 1-2 SETS. THIS DOES NOT TAKE INTO ACCOUNT WARM-UP SETS.

AFTER THE FINAL WEEK OF THE CYCLE OR ON THE FINAL WEEK OF THE CYCLE MAX OUT ONCE MORE. THEN START OUT ON A NEW CYCLE USING THE NEW MAXIMUM TO CYCLE WITH.

EXAMPLE OF CYCLING

EXERCISE SQUAT, MAX OUT 400 LBS - CYCLE PERIOD 10 WEEKS.
GOAL AT THE END OF 9 WEEKS 410.

1st week	65% of 410-265 lbs	for no less than 2 sets	14-15	repetitions
2nd week	70% of 410-285 lbs	for no less than 2 sets	12-13	repetitions
3rd week	75% of 410-305 lbs	for no less than 2 sets	10-11	repetitions
4th week	80% of 410-330 lbs	for 1 set	8-9	repetitions
5th week	85% of 410-350 lbs	for 1 set	6-7	repetitions
6th week	90% of 410-320 lbs	for 1 set	4-5	repetitions
7th week	95% of 410-390 lbs	for 1 set	2-3	repetitions
8th week	100% of 410-410 lbs	for 1 set	1	repetition
9th week	100% of 410-410 lbs	for 1 set	1	repetition

10th week - Evaluation week

AFTER MAXING OUT SET A NEW GOAL TO MAX OUT AT. SET THE GOAL MAX SLIGHTLY HIGHER THAN THE LAST MAX OUT. IF THE MAX IS SET TOO HIGH THE PERSON WILL PEAK OUT IN THE CYCLE TOO EARLY. SET A GOAL 10-25 LBS HIGHER THAN ONE'S LAST MAX.

ALSO, WHEN CYCLING AN EXERCISE IT IS NOT NECESSARY TO START OUT AT 65% LIKE THE ABOVE EXAMPLE. ONE CAN START AT 70-75% OF A NEW MAX GOAL IF ONE CHOOSES TO START AT A HIGH PERCENTAGE WATCH OUT FOR PEAKING EARLY. IF ONE PEAKS EARLY GO DOWN TO 65-70 PENCENT FOR A WEEK OF LIGHT TRAINING. THIS WILL ALLOW THE BODY TO RECOVER. DO NOT DO A LOT OF REPETITIONS WITH THE LIGHT WEIGHT, OR THE BODY WILL CONTINUE TO BURN OUT. AFTER A WEEK OF LIGHT TRAINING, JUMP BACK UP TO HIGHER PERCENTAGE, BEFORE MAXING OUT AGAIN.

SPLIT STRENGTH TRAINING METHOD

IT IS POSSIBLE TO SPLIT THE ORDER OF THE MUSCLE GROUPS UP INTO DIFFERENT DAYS. THIS REQUIRES MORE THAN 3 DAYS OF TRAINING, BUT IT TAKES LESS TIME TO TRAIN IN A DAY. IT ALSO ALLOWS MORE TIME FOR THE MUSCLES TO RECOVER. THIS IS A DIFFERENT WAY TO TRAIN AS ONE GETS STRONGER.

HERE IS AN EXAMPLE:

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
PARALLEL SQUAT	BENCH	OFF	SAME AS MONDAY	SAME AS TUESDAY
SEATED MILITARY	FLYS		MAYBE CHANGE WEIGHT LIGHTER ON SQUAT, DO DIFFERENT EXERCISES FOR SHOULDER AND BICEPS	MAYBE CHANGE WEIGHT LIGHTER ON BENCH. DIFFERENT EXERCISE FOR CHEST, BACK AND TRICEPS
LEG EXTENSION	PULLDOWNS			
SHRUGS	CLOSE GRIP BENCH			
LEG CURL	UNIVERSAL			
BICEP CURL	TRICEP PUSHDOWNS			
	SIT-UPS			

IF YOU FEEL DOING MILITARY, SHRUGS AND BICEP CURLS HURT YOUR BENCH ON TUESDAY, SWITCH DAYS AND BENCH, FLYS, PULLDOWNS ETC., ON MONDAY.

REMEMBER NEVER DO:

1) LEG EXTENSION OR LEG CURL BEFORE SQUAT
2) CLAVES BEFORE SQUATS, LEG EXTENSION OR LEG CURL
3) SHOULDER PRESS OR MILITARY BEFORE BENCH PRESS
4) SHOULDER SHRUGS BEFORE MILITARY OR ANY OTHER UPPER BODY EXERCISE.
5) PULLDOWNS BEFORE BENCH
6) NEVER DO ANY ARM EXERCISES BEFORE ANY OTHER EXERCISES. ARMS ARE THE LAST MUSCLES TO BE DONE.

YOU CAN TRAIN THE MUSCLE GROUPS BY TRAINING A LARGER MUSCLE OF THE LOWER BODY AND THEN A LARGE MUSCLE GROUP OF THE UPPER BODY, AND DO THE WHOLE BODY THAT WAY FOR EXAMPLE:

1) PARALLEL SQUAT
2) BENCH
3) LEG EXTENSION
4) SEATED MILITARY
5) LEG CURL
6) PULLDOWNS
7) SHRUGS
8) BICEP CURLS (FRONT OF UPPER ARMS)
9) TRICEP EXTENSIONS (BACK OF UPPER ARMS)
10) SIT-UPS

THIS IS TRAINING EVERY MAJOR MUSCLE GROUP IN ONE DAY, 3 TIMES A WEEK.

PART III HURRICANES SUMMER STRENGTH TRAINING PROGRAM FOR FRESHMEN

SUMMER STRENGTH TRAINING PROGRAM

UNIVERSITY OF MIAMI FOOTBALL TEAM

JUNE TO AUGUST

"MAXIMUM EFFORT PRODUCES MAXIMUM GAINS,
SUBMAXIMUM EFFORT PRODUCES SUBMAXIMUM GAINS"

By
RAY GANONG
DIRECTOR OF STRENGTH
AND CONDITIONING

A GENERAL STRENGTH TRAINING PROGRAM

INTRODUCTION

This little booklet will teach you how to increase your strength. Did you know you can increase your flexibility, strength, speed, and possibl your body size by properly strength training?

Linemen and linebackers have a better chance of increasing their body size than a runningback, quarterback, defensive back, wide receiver or kicker.

The increasing in body size has to do with your genetic potential for muscular growth. Regardless of how big you are capable of becoming, as long as there is an increase in your strength, flexibility, and speed, who cares.

You will be making yourself a better football player!

EQUIPMENT AND EXERCISES

What type of equipment can you use to strength train? Do you have free weight, universal machines, nautilus machines; maybe some combination of the above equipment? Regardless of the equipment, remember that it is not the tool you use, but the intensity behind the tool you use that will produce the results.

If you have free weight, these are the exercises I recommend you do:

1) Parallel squat
2) Bench press
3) Stiff legged dead lift
4) Standing or seated military
5) Barbell curl
6) Close grip bench
7) Sit-ups

(Do the exercises in the order they appear. You may bench before squatting).

If you have a universal machine, these are the exercise I recommend you do:

1) Leg press
2) Bench press
3) Leg extension
4) Seated military or seated behind the neck press
5) Leg curl
6) Pulldown
7) Standing bicep curl
8) Pushdowns
9) sit-ups

(Do the exercises in the order they appear. You may bench before squatting).

If you have nautilus machines, these are the exercises I recommend you do:

1) Duo hip and back or squat machine
2) Double chest
3) Leg extension
4) Pullover
5) Leg curl
6) Double shoulder
7) Bicep curl
8) Tricep extension
9) Sit-ups
10) Neck machine

(If you have more machines available, use them. If you are training your body in a different order than the order written, continue with that same routine).

If you have any combination of the three types of equipment, these are the exercises I recommend you do:

1) Squat
2) Bench press
3) Leg extension
4) Seated or standing military
5) Leg curl
6) Pulldowns
7) Pushdowns
8) Dumbbell curl
9) Sit-ups
10) Neck machine

(Do the exercises in the order they appear. You may bench before squatting).

PRINCIPLES FOR THE EXERCISES

You have chosen your exercises. Now you need to know how much weight, how many repetitions, how often to train, and how many sets of each exercise to do.

The following principles will teach you how to be your own strength coach. Before you start any training, I want you to record all your workouts. What a waste of time you say! If you want to make continued progress week-in and week-out, month in and month out, then record your workouts. Your records will tell you how to continue your progress for each exercise. The records will tell you exactly how much weight you should be using for an exercise, instead of guessing how much weight you think you should be using for an exercise. Your records will also tell you when you are starting to burnout, or peak. When you start peaking you can take steps to get over the hump. By now I hope you have decided to do yourself a favor and record your workouts. It really is a simple task, all you have to do is write in a small notebook or zerox a copy of the program card I've enclosed in this booklet. Keep an unused original copy of the program card to make more copies later.

GENERAL PRINCIPLES

EXERCISES

I've given you the basic exercises to do at the beginning of this booklet. If, in your strength training experience, you like doing different exercises for a muscle group in your body, then by all means continue to do those exercises. If you choose to do more than one exercise for a muscle group, do not do more than three different exercises for that muscle group. For example:

CHEST	HIPS & LEGS
Bench press	Squat
Incline press	Leg extension
Flys	Leg curl

Why? If you are training your whole body in one day, you'll be over strength training. You'll also have to spend about three hours in the room training. There is no reason to spend more than one and a half (1½) hours training-ever!!! What I am telling you is to do one to three exercises for every major muscle group in your body. There are three exercises that should be in your workout. They are the building exercises. The parallel squat, bench press and the military are the building exercises.

WEIGHT TO USE

How much weight should you use for each exercise? The amount of weight you use for an exercise will depend on the amount of repetitions you are supposed to be doing for the exercise. Deciding on a weight to use for a certain number of repetitions is pure trial and error.

PROGRESSION OF WEIGHT

Certain exercises will require you to warm-up to the heavy set of an exercise. The parallel squat, bench press, and military are three exercises that will need a progression in weight up to the heaviest set or sets. Why? You just might hurt yourself. Can you imagine doing a squat with a heavy weight of say three hundred pounds (300 lbs) on the first set! No way!!! How do you do this progression?

Start with a light weight for the exercise, then add some more weight to do another set, then add some more weight, do another set. By now the muscle and the mind will be ready for the one to three (1-3) sets of the heavy weight. How much weight should you jump each set? When doing the squat allow for twenty-five to fifty pound (25-50 lb) jumps. For all other exercises make jumps in weight from ten to twenty-five pounds (10-25 lbs) per set. For example:

	SQUAT		
	135	160	185
25 lb Jumps	5	5	5

BENCH		
135	145	155
5	5	5

← → 10 lb Jumps

MILITARY		
130	140	150
5	5	5

You do not need to progress the weight for all exercises, just the exercises where you will be using a very heavy weight. So you will end up doing more than say three sets of an exercise when you are progressing up to a heavy weight. For example:

SQUAT				
135	185	235	285	285
5	5	5	5	5

A time will come when your heavy weight will get very high in relation to the other sets of the exercise. For example:

SQUAT			
135	185	210	300
5	5	5	5

- Notice the big jump from 210 to 300 lbs.

If this starts to happen to you, just increase the weight of the other sets so you will not be making such a big jump to your heavy set. For example:

SQUAT			
135	225	255	300
5	5	5	5

The progression of weight is a personal thing. You don't have to make jumps in weight the way I stated. So long as you are warmed up and ready for the heavy weight. Don't tire yourself on the warm-up sets. Do no more than three sets of warm-up.

BASIC STRENGTH TRAINING PRINCIPLES

REST BETWEEN SETS AND EXERCISES

Rest no more than one and a half (1½) minutes between sets of the same exercise. Rest no more than two to three (2-3) minutes between different exercises.

REPETITIONS

Your repetitions should be no higher than eight for any exercise. To build strength this is a high number of repetitions. At no time should you do an all out one repetition. You should never max out, unless you have trained at least six weeks. The demand on the body and the mind is so high when maxing out, that if you max out whenever you feel strong you'll burn out and start losing strength.

I recommend for your foundational exercises, parallel squat, bench press, and military. You do repetitions of five (5). The other exercises can be done for repetitions of eight (8). Since your repetitions will either be five (5) or eight (8), your weight should allow you to do at least one set of five (5) or eight (8) reps.

SETS

The highest number of sets with the same weight should be (3). Three sets (3) of the same weight is more than enough intensity to make your muscle grow.

SPEED OF MOVEMENT

Using any mode of training, high intensity, power, negative only, etc. The speed of movement of the weight should be at a rate that no bouncing, or jerking takes place during the lift. The speed of movement should be so that no momentum is used to do the lifting. Also, concentrate on the lowering portion of the exercise. Lower the weight slower than it was lifted. Do not lift the weight up and drop it.

PARTNERS

Keeping yourself motivated for three months of strength training is admittedly a drain psychologically. Try to find someone you can train with, and train seriously with him. Push each other on each repetition of each set. Concentrate on perfect form, and never side track from the proper technique of lifting and lowering the weight. Push each other to the point where the muscle honestly fatigues, and not to the point to where the mind fatigues out, due to the amount of pain which you feel. Remember, the pain is only due to a build up of waste by-products which occur due to the type of muscular contraction you are performing. So long as you don't jerk the weight while lifting, and concentrate on perfect form, you will never hurt the muscle or the connective tissues of the muscle. The old belief of without pain there is no gain is only partially true, because it is how you train past the point of pain which causes gain.

PEAKING

There comes a point during a continuous training period when the body feels very fatigued and run down. There also seems to be a backward trend in the training sessions. Repetitions are decreasing rather than slowly increasing. The body feels sore and the soreness seems to be more persistant rather than decreasing. This is the sticking point in the training program or peak point. It is recommended that a change take place. Change the workout days, change the order or exercises slightly, change exercises that work a muscle group, or just take four or five days off and relax. The body's system needs more time to recover from the training. This peak point can also be psycological, and a simple change in the workout routine is all that will be necessary. It is important to notice this occurring. There are no real exact times when this occurs, but when things seem to be dragging, that is a sure sign.

PSYCHOLOGICAL TRAINING TIPS

There are a few techniques used to help an athlete get over a plateau on any exercise. All of these are psycological in nature. For example, an athlete gets stuck in a movement. By just showing help or assistance will enable the athlete to complete the repetition on his or her own effort. Some call this the touch technique. Another version of this technique would be to touch the body part doing the movement ever so slightly. This is enough motivation that will enable the athlete to finish the repetition. Yelling, cohersion and pleading are all ways to get an individual to complete a set. The type of words and the volume of the words depends upon the individual, but this is a very effective technique to use. Prepare all athletes mentally before each heavy set. They should see themselves doing the movement, and all motivation should be all positive, never ever negative techniques.

NUTRITION AND GAINING WEIGHT

There are only three ways for an athlete to gain weight. First he must strength train, second maintain a proper diet, and third allow time for the body to recover.

As long as an athlete eats a balanced meal, with foods from the four major food groups; breads & cereals, fruits & vegetables, meats, poultry, and daily products, he will supply all the nourishment required by the body. The latest unbiased research to date states; that the body needs no supplements as long as an athlete eats 3 well balanced hardy meals. The body's muscle cell contains 20% protein. The majority of muscle cell is fluid, 70% to be exact. Protein is not burned up during contraction of a muscle, glucose is. So large amounts of proteins are not required. Any proteins not used by a muscle cell are discarded by the body or stored as unfunctional fat!

OVERLOAD

This is the most important principle in this booklet!!! Overload is the reason why you must use the program card. When you get all your repetitions for each set of your exercise then increase the weight. Increase the weight by ten pounds (10 lbs) for the squat, and five pounds (5 lbs) for all other exercises. Why so light, you ask? If you make large jumps in your weight the body will not be able to adjust to the heavy weight fast enough, and you will peak much too soon.

INCREASE THE WEIGHT EACH WORKOUT

When you start out training you will be able to increase the weight of the exercise everytime you do the exercise. For example:

Monday		
BENCH		
135	155	175
5	5	5

Wednesday		
BENCH		
135	155	180
5	5	5

Friday		
BENCH		
135	155	185
5	5	5

INCREASE THE WEIGHT WEEKLY

When you stop making your reps for each set of the exercise, wait until you make your repetitions and then increase the weight the next week. Do not increase the weight again until the following week. For example:

Monday		
BENCH		
135	155	175
5	5	4

Wednesday		
BENCH		
135	155	175
5	5	4

Friday		
BENCH		
135	155	175
5	5	5

Mon & Wed you go 4 reps. Wait til you do get your reps then increa the weight next week.

NEXT WEEK

Monday		
BENCH		
135	155	180
5	5	5

Wednesday		
BENCH		
135	155	180
5	5	5

Friday		
BENCH		
135	155	180
5	5	5

Use the same weight during th entire week. You got all your rep in the week. Increase the weight next week

FOLLOWING WEEK

Monday		
BENCH		
135	155	185
5	5	5

Wednesday		
BENCH		
135	155	185
5	5	5

Friday		
BENCH		
135	155	185
5	5	5

Stay with the weight until you get your reps. Then increase the weight next week.

You are allowing the body more time to recover in order to grow. Instead of adding weight on a day by day basis, the weight is increased on a week by week basis.

HEAVY, LIGHT HEAVY, LIGHT WEIGHT INCREASE

As you continue to get stronger you will notice that even though you are using the same weight for an exercise, the reps go up and down during the week.

For example:

Monday		
SQUAT		
135	155	185
5	5	5

Wednesday		
SQUAT		
135	155	185
5	5	3

Friday		
SQUAT		
135	155	185
5	5	4

Notice how the reps change for the same weight during the week.

Why does this occur?

That's because the body needs more time to recover from that heavy lifting day on Monday. If this starts to happen to you go another week to see if the body can adjust to the weight by getting all the reps. If you do not get your reps then change your program to a heavy, light heavy, light routine. Maintain the heavy weight one day, but the next day lighten the weight from the heavy day. Reduce the weight of the heaviest set by ten to twenty-five pounds (10-25), but do not change your reps. Do the heavy, light heavy, light routine for your building exercises, the parallel squat, bench press and seated or standing military. If you feel you need to do the same for the rest of your exercises then give it a try, but you do not have to.

Monday		
SQUAT		
135	155	185
5	5	5

Wednesday		
SQUAT		
135	155	185
5	5	3

Friday		
SQUAT		
135	155	185
5	5	4

After another week no change in reps.

FOLLOWING WEEK

Monday		
SQUAT		
135	155	185
5	5	5

→ Less 15 lbs

Wednesday		
SQUAT		
135	155	160
5	5	5

→ Less 15 lbs

Friday		
SQUAT		
135	145	145
5	5	5

Notice how the second (2) set was reduced. Your reducing the weight from your last days heavy set. You do not want to use the heavy weight as the workout before.

Increase the weight in an exercise once you get all your reps on your heavy day of the exercise. For example:

Monday		
SQUAT		
135	155	185
5	5	5

Wednesday		
SQUAT		
135	155	160
5	5	5

Friday		
SQUAT		
135	145	145
5	5	5

You made all your reps on your heavy day of squatting.

NEXT WEEK

Monday		
SQUAT		
135	155	195
5	5	5

15 lbs Less →

Wednesday		
SQUAT		
135	155	180
5	5	5

15 lbs Less →

Friday		
SQUAT		
135	155	165
5	5	5

Increase the weight of your heaviest set, then reduce the weight for your light heavy and ligl day from the new heavy weight.

HOW OFTEN TO DO AN EXERCISE

Never do an exercise more than three (3) days in a week. Allow at least one days rest between exercises.

Train Monday, Wednesday, Friday. Rest the week-end or Tuesday, Thursday, Saturday. Rest on Sunday and Monday. The choice of days are up to you.

SPLIT ROUTINES

Those of you who start to burn out, or spend more than one and a half (1½) hours in the strength room should consider doing a split routine. When you do a split routine you break the body up into different days. Here is one split routine you can do.

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SAT.	SUN.
Squat Leg extension Leg curl Stomach	Bench Military press Pulldown Pushdowns Bicep curl	Off	same as Monday	Same as Tuesday	Off	Off
MUSCLE GROUPS Hips Legs Stomach	MUSCLE GROUPS Chest Shoulders Back Arms		MUSCLE GROUPS same as Monday	MUSCLE GROUPS same as Tuesday		

This is just one way to split up your routine.

FLEXIBILITY

Flexibility is the range of motion in a joint or combination of joints. Lack of flexibility is one of the most frequent causes of improper or poor movement as well as a reason for many injuries in athletics. With poor flexibility, speed is hindered since the muscles have to work harder to bring about a maximum length of stride from the legs which is one of the components needed for speed increases. This extra work results in a greater loss of energy and will obviously hinder your performance on the field. By increasing the flexibility of the ankles, hips and trunk, greater speed can be achieved as well as saving a great deal of energy allowing you to play harder and longer. For the short legged athlete, great flexibility, in the areas just mentioned, can help to overcome the disadvantages he finds in running against the taller athletes.

Our flexibility program, designed by an expert in the area of flexibility and stretching, takes a minimum of ten minutes. Do not feel as though you should not stretch for more than the ten minutes that this program was designed for--THIS TIME LIMIT IS ONLY A MINIMUM. Most individuals need considerably more time than this and should by all means put in the extra time improving their flexibility. Take the time to enjoy your flexibility program rather than going into it with the attitude of "hurry up and get it over with". Your workouts will go a lot smoother and your warmdown will be a lot more pleasant with good concentration as to what your flexibility program is supposed to do for you--RELAX YOUR MIND AND MUSCLES.

While you are stretching you should be anticipating your goals for the day so that your workout is progressive. Try to get all of the day's happenings off of your mind and concentrate entirely on the workout that you will be having. Not only do we want to train the body but also the mind. Following are some guidelines for your stretching:

HOW TO STRETCH

-Go into the stretching program with a relaxed and open mind.

-Stretch to the point where it is comfortable, not painful. Do not strain when you stretch-straining keeps the muscle from relaxing.

-Concentrate on the muscle being stretched-think about the good feeling of the stretch.

-As the feeling of the stretch changes to a mild stretch, stretch a little further, being sure that it is a comfortable stretch - WITH NO PAIN.

-DON'T BOUNCE when you stretch. This type of ballistic stretching can cause injury and will actually tighten the muscle to prevent it from being injured from the bouncing (myotatic stretch reflex).

HOW TO STRETCH, cont.

-Always stretch the tight side first. You will naturally spend more time on the first side stretched than you will the second side.

-Breathe with a slow, normal rhythm. Do not hold your breath.

-STRETCH BEFORE AND AFTER EACH WORKOUT, but do not feel your stretching is limited to this period of time. By all means stretch as many times and as often as you feel it is necessary. Before bed, before breakfast, before or after work-WHENEVER-. It makes no difference. Stretching will make you feel better as well as relax you.

-MAKE STRETCHING PART OF YOUR DAILY HABITS AND ROUTINE.

The minimum test of flexibility that we would like all of our athletes to achieve is illustrated in figures 1 and 2 from Bob Anderson's stretching program. In fig.1, the legs are held straight with the fingers touching the toes and in fig.2 sitting with the legs spread, forearms on the floor, fist on top of fist with the head resting on the top fist. You should be able to hold this stretch from 50 to 60 seconds comfortably. If you cannot achieve this minimum test, you have some work to do. If you can achieve this, continue to gain in flexibility - Remember, this is only a minimum test!

fig.1

fig.2

Through this simple stretching program, we can improve our workouts in several positive ways. By becoming regular with these stretches there will be a positive change in the way you look, the way you feel, and in what you can do. Prevention of injuries and reduction of soreness is worth twice the time spent on the stretching that we do. Stretching can make you feel better going into a workout as well as relax you after a workout. Any type of activity will make you tighten up whether it is running, weight lifting, or just a pickup game of basketball-UNLESS you stretch before and after the activity. Inactivity will have the greatest effect on your flexibility and the way you feel so by all means stay as active as you possibly can all summer.

Don't be afraid to add variations of these or other stretches to your flexibility program. The more angles that you can stretch a muscle from the better. The great thing about stretching exercises is that you can do them any time of the day, anywhere, or with anyone. More time is wasted in front of the television that could be used for stretching time. Whenever you have idle time, use that time for stretching. The benefits will become quite obvious after a month or so.

1-A stretch for the tricep and the top of the shoulder, pull the elbow behind the head for a 10 second stretch-each arm.

2-With interlaced fingers, turn the elbows in while inhaling and extending the chest up and out as you lift the arms up. Hold this for 15 seconds.

3-With your hands locked over your head, bend at the waist and try to pull your hand to the floor, keeping the arms behind the head. Hold this for 10 seconds each side.

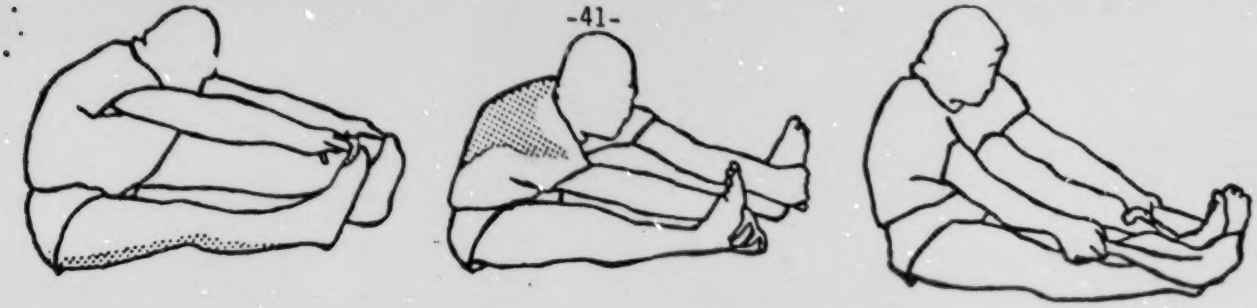
4-From a standing position with feet about shoulder width apart, bend forward from the waist letting your neck and arms relax. Go to the point where you feel a slight stretch and let the weight of the upper body do the stretching. Concentrate on relaxing the back and the hamstrings. DON'T BOUNCE-hold this stretch for 30 seconds. Bend the knees before standing back up.

6-After holding the quarter squat position you are back to stretching the hamstrings-this time hold the stretch for 25 seconds still concentrating on relaxing the muscle being stretched-KNEES LOCKED.

REMEMBER:

- -CONCENTRATE ON RELAXING THE MUSCLE BEING STRETCHED
- -DON'T BOUNCE, KEEP EVEN PRESSURE ON THE STRETCH AT ALL TIMES
- -STRETCH ANYTIME OF THE DAY THAT YOU HAVE EXTRA TIME ON HAND OR IF YOU START FEELING TIGHT OR TENSE

5-The quarter squat is designed with the idea of tensing the quads as the hamstrings relax. Hold this for 20 seconds and then go back to the hamstring stretch.



7-Sit down with your legs straight and heel between 6-8 inches apart. Reach down to the ankles or the toes, feeling the stretch just behind the knees (or if your back is tight you will also feel the stretch across the back). For the more flexible individuals, extra stretch can be attained by pointing the toes back toward the head, by lifting the head and putting the chest down on the knees or by using both of these techniques. If your flexibility is at a point where you cannot reach down to grasp the toes or the ankles, simply hook a towel over your feet and as you gain in flexibility, you will be able to grasp further and further down the towel until you are able to reach the toes or ankles. Hold this stretch for 20 seconds. Again, keep the knees locked.

8-Spinal Twist-This stretch is very good for the muscles along the spine and each side of the hips as well as the arms. It will help you turn to look behind you without having to turn your whole body. Starting with your legs straight, as in stretch #7, take the left leg and cross it over the right leg and place the left foot flat on the ground. With your right arm reach around your bent leg as if you were trying to grab your left hip. Take your left arm and put it directly behind you as you slowly turn your head, sit up straight and look over your left shoulder. Hold this stretch for 10 seconds and then cross the right leg over the left leg and hold that stretch for 10 seconds. The spinal twist in the middle figure is for those who cannot perform the twist with a straight bottom leg.

9-This is for stretching the groin area and for some it may also stretch somewhat in the back. Put the soles of your feet together and grab around your toes, gently pulling yourself forward until you feel a good stretch in the groin. Notice the elbows on the outside of the knees giving stability and balance to the stretch.

REMEMBER: DON'T BOUNCE ON YOUR STRETCHES-
KEEP EVEN PRESSURE ON THE STRETCH
AT ALL TIMES

10-Cradling the leg around the knee and the ankle pull the leg as one unit up to the chest. Do not try to force the knee to your chest-relaxation in this stretch will help tremendously. If this position does not give you a good stretch, lie back and stretch. Hold this stretch for 20 seconds and then move to #11.

11-Lay on your side and stretch the leg you just got done stretching in the cradle stretch. Grab the ankle of the leg you are going to stretch and slowly move your hips forward. Concentrate on the stretch that you get in the quadriceps. Hold this stretch for 10 seconds and then go on to #12.

12-After stretching the quads (#11) you move into the hurdler's stretch for another quad stretch (with the same leg). Make sure that both legs stay flat on the ground. To intensify the stretch lean back, using your arms for support. <u>If the knee comes off the ground you are leaning too far back</u>. Hold this stretch for <u>30 seconds</u>.

13-For this stretch you straighten the leg that we were stretching in #12 and bend the other leg in with the sole of the foot on the thigh of the straight leg. From this position, bend forward at the waist toward the foot of the straight leg. It is very important in this stretch that you keep your leg straight and your toe pointed up. Hold this stretch for <u>30 seconds</u>.

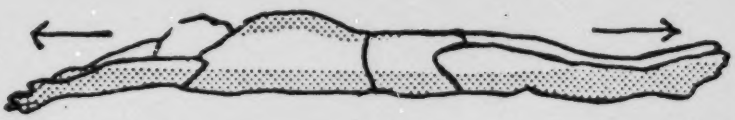
14-Now repeat 11, 12, 13, for the prescribed amount of time for the other leg. Whether you are right or left handed, stretch the side that is the tightest of the two first since you will have a natural tendency to spend more time on the first part of your stretching program.

For a variation in stretch #13 reach across your body with the arm of the side of the straight leg to the outside of the bent leg as you reach over the top of your head with the other arm. This will stretch the muscles of the upper back and spine as well as the side of the lower back and of course the hamstrings.

15-In a sitting position with your chin tucked on your chest, pull your knees to your chest and gently roll up and down your spine. Try to roll as evenly and controlled as possible between 4 to 8 times or until you feel your back begin to limber up. On the last roll backward, keep going back and over with the feet, ending up in stretch #16.

16-In this stretch, your feet and legs are over your head with your hands at your hips for support and control of the stretch. Do not hold your breath or stretch in a position that cuts off your supply of air. Once you find a comfortable position, RELAX. Hold this for 20 seconds.

17-From #16, with the legs overhead, put your hands behind your knees and keep your legs bent as you roll down slowly Roll vertebrae by vertebrae while you keep your head on the ground-takes 10-15 seconds.



18-Extend your arms overhead and your legs straight out, pointing your toes and reaching as far as you can, stretching as far as you can. For a diagonal stretch point the fingers of the right hand and the toes of the left foot and hold. Then point the left hand and the right foot and hold. Hold for 5 seconds and then relax completely.

19-Hold the left leg just below the knee and pull it toward your chest. Keep the back of your head down and then slowly bring your head up toward your bent knee. Hold this stretch for 10 seconds.

20-From #19 gently bend your leg that you were stretching over the leg that was straight. Look to the opposite shoulder (down the arm that is extended. Hold for 20 seconds.

21-Repeat 19 and 20 for the other leg. These stretches will stretch the hamstring, hip, back, upper back and shoulder.

22-Sit up with your legs spread eagled as wide as they will go and as you slowly bend forward to stretch rotate your hips forward also. Keep the legs straight and your toes pointed up. If possible use your hands out front while holding a comfortable relaxed position for the stretch. Hold this portion of the stretch for 20 seconds.

From the stretch to the middle you move to one leg to stretch the hamstring. Again, keep your head forward and your back straight as you hold this stretch for 20 seconds before stretching the other leg for 20 seconds.

For an added stretch across the back reach with the inside arm to the outside of the ankle.

23-Put the soles of the feet together and grab around your toes as you gently pull yourself forward. Hold for 20 seconds.

24-Saigon squat-with your feet flat and toes pointed out at 45° angles-heels 4 to 12 inches apart depending on your flexibility. This stretches the front part of the lower legs, the knees, back, ankles, achilles tendons, and deep groin. Hold for 10 seconds.

25-Place your foot flat in front of you with the knee behind you on the floor and slowly extend out over the toe with the back knee keeping contact with the ground. To intensify the stretch and to stretch more of the groin area, straighten out the back leg and gently lower your upper body to the inside of the knee of the forward leg. Use your hands for balance. The feeling of stretch will be in the groin, front of the hip, hamstrings, and calf.

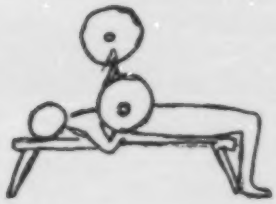
DO ALL STRETCHES IN A CONTROLLED FASHION-DON'T BOUNCE.
CONCENTRATE ON RELAXING THE MUSCLE GROUPS BEING STRETCHED.

PART IV USE OF EQUIPMENT

A FEW BASIC EXERCISES

EXERCISES

1. BENCH PRESS



A. Hold the weight with the overhand grip slightly wider than shoulder width with the bar directly above the chest at arms length. Lower the bar to the chest keeping the buttocks in contact with the bench, feet flat and push the bar up to arms length. Lower and repeat.

B. Value - Overall development of the chest.

C. Equipment - Bench and barbell or Universal Gym bench press station.

2. INCLINE PRESS

A. Hold the weight with the overhand grip slightly wider than shoulder width with the bar directly above the chest at arms length. Lower the bar to the top of the chest, near the neck and push the bar out to arms length. Lower and repeat.

B. Value - Development of the upper fibers of the chest, especially good for offensive linemen.

C. Equipment - Incline board or bench and a barbell.

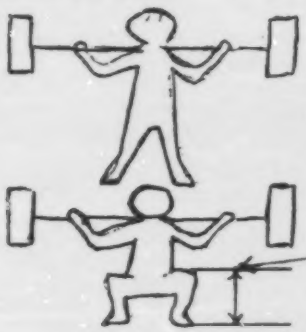
3. LYING LATERAL RAISE (FLYS)

A. Start with dumbbells directly above the chest with elbows slightly bent. Lower arms to a parallel position, keeping the elbows slightly bent, raise the dumbbells to the up position. Lower and repeat.

B. Value - Development of the outer fibers of the chest.

C. Equipment - Flat work bench and dumbbells.

4. PARALLEL SQUAT



A. Stand erect with bar behind the neck on shoulders. Feet shoulder width apart with toes pointing slightly outward. Squat down always, keeping the head up and back flat. Do not bounce off the bottom of the squat by lowering yourself too quickly. Lower yourself down until the thickest part of the front of your leg is parallel to the floor.

B. Value - Development of the quadriceps femoris. This is the best overall exercise since it develops the lower back, hips, buttocks and power muscles for running and jumping.

C. Equipment - Squat stands or Squat rack, barbell and bench between 12" and 18" high.

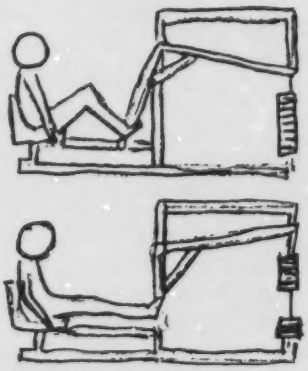
5. LEG SLED

A. Start with feet shoulder width apart with toes pointing slightly outward. Extend the thighs, forcing sled up the 45 degree angle track. Keep the head up and back flat. Lower and repeat.

B. Value - Development of the quadricep from the same angle that offensive linemen fire-off the line.

C. Equipment - Leg sled can be purchased or easily constructed to hold several hundred pounds.

6. LEG PRESS



A. Sit in leg press seat, grasping side handles. Place the ball of the foot on the foot pedal. Use the seat in the fourth hole from the foot pedals. Extend the pedal forward, keeping the buttocks in contact with the seat. Lower the weight until it touches, do not drop the weight or bounce it. Extend and repeat.

B. Value - Development of the quadricep muscle.

C. Equipment - Universal Gym leg press station.

7. LEG EXTENSION

A. Sit on leg table and extend the knee slowly to full extension. Lower it slowly with resistance, don't kick or bounce.

B. Value - This will strengthen and stabilize the knee joint.

C. Equipment - Universal Gym leg extension machine.

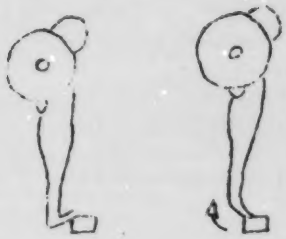
8. LEG CURL

A. Place padded roller bar near the heel and pull upward to the buttocks. Lower and repeat slowly without any jerking.

B. Value - Development of the hamstring, a must to aid in the prevention of hamstring pulls.

C. Equipment - Universal Gym leg curl station.

9. HEEL RAISE



A. Place bar behind neck on shoulders. Stand with toes and ball of the feet on a 2X4 board. Raise upward to full extension, lower heels to the ground and repeat. Do not bend the knees or jerk the hips.

B. Value - This exercise should be done in all three positions for development of the gastrocnemius muscle.

C. Equipment - Barbell and a 2X4 board about 10" long. This exercise can be done on the Universal Gym leg press station, lower pedal.

10. BENT KNEE SIT-UP

A. Lay on back and anchor feet. Place weight behind the head, tuck the chin and sit-up keeping knees bent.

B. Value - Development of the abdomial muscles and groin.

C. Equipment - Sit-up board and 10 or 25 lb. plate.

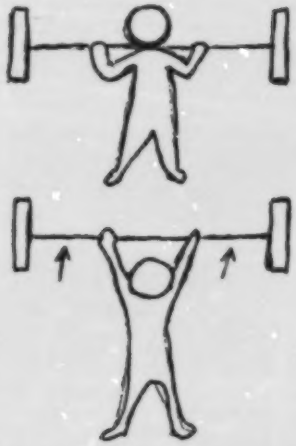
11. NECK PULLEY

A. Resist neck pulley in all four directions.

B. Value - Development of the sternomastoid. Especially good for linemen and linebackers.

C. Equipment - Universal Gym neck station or head strap.

12. MILITARY PRESS



A. Use the overhand grip slightly wider than shoulder width. Clean the bar and push the bar overhead, moving the bar in a straight line. Lower the bar until it touches the chest and press overhead again. Lower and repeat. Do not bounce the bar or lean excessively with the back. Keep feet flat on ground, do not raise heels.

B. Value - Development of the anterior deltoid. This exercise builds the shoulder size

C. Equipment - Barbell or Universal overhead press station.

13. FRONT, LATERAL & BENT-OVER RAISES

1A. Stand with a dumbbell in front of each thigh with palms facing the body. Raise dumbbells to shoulder level keeping the arms straight. Lower and repeat.

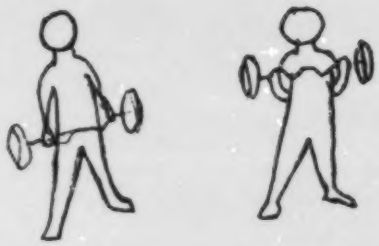
2A. Stand with a dumbbell at each side, the palms facing the body. Raise the dumbbells directly sideways to head level position, keeping arms straight throughout. Lower and repeat.

3A. Lean forward at the hips, allowing the arms to hang straight down from the shoulders with a dumbbell in each hand. Keeping the arms straight, raise the dumbbells in an arc until the arms are straight out from the body. Lower and repeat. Do all three exercises without setting down the dumbbells.

B. Value - Development of the anterior, medial and posterior deltoid respectively.

C. Equipment - Dumbbells.

14. E-Z CURL



A. Start using an underhand grip with the bar at thigh rest position. Keep the elbows close to the sides of the body as the bar is curled upward to the chest. Do not raise heels, bend knees or arch the back. Lower and repeat.

B. Value - Development of the bicep. Good for size.

C. Equipment - E-Z curl bar, standard bar or Universal Gym low pulley station.

15. PREACHER CURL

A. Use the underhand grip and keep the back of the arm flat against the preacher board as the bar is curled up to the chest. Lower and repeat.

B. Value - Development of the bicep. Important for symmetrical balance and will stabilize the arm for movements such as throwing.

C. Equipment - Preacher board (45° angle) and E-Z curl bar, standard bar or the Universal Gym low pulley station is excellent.

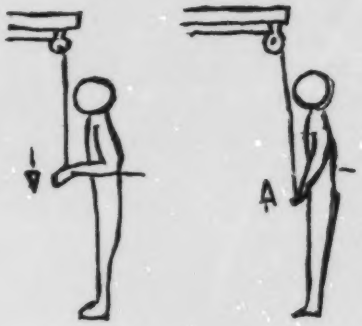
16. FRENCH PRESS

A. Hold the bar with the overhand grip directly overhead, keeping the elbows stationary. Lower the bar slowly without bouncing it as it reaches the lower neck area. Extend the bar back to the overhead position by keeping the heels flat and elbows stationary.

B. Value - Development of the tricep.

C. Equipment - E-A Curl bar, standard bar or this exercise can be done quite effectively on a Universal Gym low pulley machine in which case it is called a supine tricep extension.

17. DORSI TRICEP EXTENSION

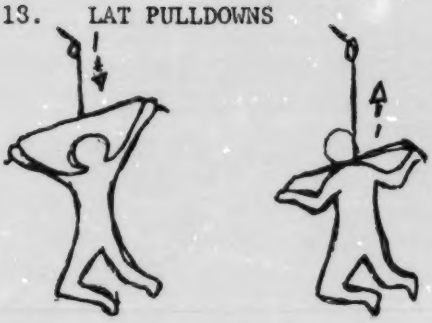


A. Hold bar with the overhand grip with 6" to 8" between hands. Move the bar down to full extension of the arms and slowly let the bar back up until the forearms are parallel to the floor, then extend the bar downward keeping the elbows near your side. Let the bar back up to parallel and repeat.

B. Value - Excellent development for the tricep.

C. Equipment - Universal Gym high pulley station.

13. LAT PULLDOWNS

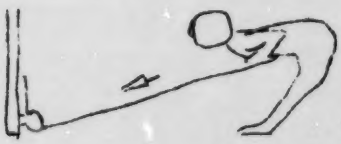


A. Hold the bar with the overhand grip with the hands on each end of the bar. Kneel down and pull the bar behind the neck until it touches. Let the bar up to arms length and repeat.

B. Value - Development of the Latissimus Dorsi muscle.

C. Equipment - Universal Gym high pulley station.

19. LAT PULLS



A. Hold the bar with the overhand grip with hands 10" apart. Stand, leaning with knees flexed and arms at full length in front of you. Pull the bar in a direct line to the stomach and let it back to arms length.

B. Value - Development of the lower fibers of the Latissimus Dorsi muscle. Good for offensive centers.

C. Equipment - Universal Gym low pulley station.

B. Value - Development of several muscle groups, especially the lower back erectors and upper back flexors. This is an excellent explosive type exercise to develop general over-all power for offensive linemen.

C. Equipment - Barbell

22. KNEE-UP

A. This exercise is very similar to the jack-knife except you bend the knees as they come up to the chest.

B. Value - Excellent development of the rectus abdominus.

C. Equipment - None

23. STIFF-LEGGED DEADLIFT

A. Standing up, hold the barbell or dumbbell at arms length. Bend down at the waist as far down as possible, hold, and stand straight up again.

B. Value - Lower back and back of upper leg.

EXERCISES CATEGORIZED ACCORDING TO MUSCLE GROUPS

I.LEG:

A. EXTENSORS

BASIC EXERCISES	EQUIPMENT
Squat	Barbell
Front Squat	Barbell
Leg Extensions	Leg Press Machine
Vertical Leg Press	Leg Press Apparatus
Universal Leg Press	Universal Leg Press Machine
Nautilus Extensor Machine	Nautilus Extensor Machine
Power Clean	Barbell

OTHER EXERCISES	EQUIPMENT
Hack Lift	Barbell
Jump Squat	Barbell/Dumbell
Step Ups	Barbell/Dumbell
Lunge	Barbell/Dumbell

B. FLEXORS

BASIC EXERCISES	EQUIPMENT
Universal Leg Curl	Universal Leg Curl Machine
Nautilus Leg Curl	Nautilus Leg Curl Machine

C. CALF

BASIC EXERCISES	EQUIPMENT
Toe Raises	Barbell
Universal Toe Press	Universal Leg Press Machine
Seated Calf Raise	Barbell
Calf Machine	Calf Raise Machine

II.BACK:

A. UPPER BACK

BASIC EXERCISES	EQUIPMENT
Lat Pull Down	Universal Pull Down Machine
Power Snatch	Barbell
Pull Up	Pull Up Bar
Upright Row	Barbell
Bent Over Row	Barbell/Universal Pull Up Machine
Shoulder Shrug	Barbell
Seated Pulley Rowing	Universal Pully Machine
Bent Arm Pull Over	Barbell/Dumbell
Straight Arm Pull Over	Barbell/Dumbell

OTHER EXERCISES	EQUIPMENT
Military Press	Barbell
Power Snatch	Barbell
Nautilus Neck & Shoulder Machine	Nautilus Neck & Shoulder Machine

B. LOWER BACK

BASIC EXERCISES	EQUIPMENT
Regular Dead Lift	Barbell
Straight Leg Dead Lift	Barbell
Good Morning	Barbell
Hyper Extensions	Universal Roman Chair Apparatus
Nautilus Hip & Back Machine	Nautilus Hip & Back Machine
Side Rotations	Barbell

III. CHEST:

BASIC EXERCISES	EQUIPMENT
Bench Press	Barbell/Universal Bench Station
Incline Press	Barbell
Straight Arm Pull Over	Barbell
Bent Arm Pull Over	Barbell/Dumbell
Lying Straight Arm Lateral Raise	Dumbell
Lying Bent Arm Lateral Raise	Dumbell

OTHER EXERCISES	EQUIPMENT
Dumbell Bench Press	Dumbell
Parallel Bar Dips	Parallel Bar
Decline Press	Barbell
Narrow Grip Bench Press	Barbell/Universal Press Machine
Nautilus Double Chest Machine	Nautilus Double Chest Machine

IV. SHOULDER:

BASIC EXERCISES	EQUIPMENT
Military Press	Barbell
Behind the Neck Press	Barbell
Push Press	Barbell
Shoulder Shrug	Barbell
Front, Lateral, Bent Over Raise	Dumbell/Barbell
Alternate Press	Dumbell
High Pull	Barbell
Power Clean	Barbell
Bench Press	Barbell

OTHER EXERCISES	EQUIPMENT
Clean & Jerk	Barbell
Behind the Neck Pull Up	Pull Up Bar
Nautilus Double Shoulder Machine	Nautilus Double Shoulder Machine
Nautilus Super Pull Over Machine	Nautilus Super Pull Over Machine
Nautilus Shoulder Shrug Machine	Nautilus Shoulder Shrug Machine
Nautilus Behind Neck Torso Machine	Nautilus Behind Neck Torso Machine
Up Right Row	Barbell/Pull Up Machine
Bent Over Row	Barbell/Dumbell
Straight Arm Pull Over	Barbell/Dumbell

VI. ABDOMINAL:

BASIC EXERCISES	EQUIPMENT
Sit Up (Standard)	With or Without Apparatus
Sit Up (Incline)	Sit Up Board
Roman Chair Sit Up	Universal Roman Chair Apparatus
Leg Raise	With or Without Apparatus
Knee Up	Floor Exercise
Frog Kick	Pull Up Bar
Hanging Leg Raise	Pull Up Bar
Parallel Bar Leg Raise	Parallel Bar
Side Bend	With or Without Weight
Jack Knife	Floor Exercise
Trunk Rotation	With or Without Weight
Side Sit Up	With or Without Apparatus
Crunches	Floor Exercise

VII. NECK:

BASIC EXERCISES	EQUIPMENT
Neck Pulley Machine	Pulley Apparatus
Head Strap	Head Strap & Weight
Universal Neck Machine	Universal Neck Machine
Wrestlers Bridge	With or Without Weight
Nautilus 4-Way, Direct Neck Machine	Nautilus 4-Way, Direct Neck Machine

V. ARM:

A. FLEXORS

BASIC EXERCISES	EQUIPMENT
Strict Barbell Curl	Barbell
Pulley Curl	Universal Pulley Machine
Nautilus Curl/Triceps Machine	Nautilus Curl/Triceps Machine
Nautilus Compound Curl Machine	Nautilus Compound Curl Machine
Dumbell Curls	Dumbell

OTHER EXERCISES	EQUIPMENT
E-Z Curl	E-Z Curl Bar
Concentration Curl	Dumbell/Barbell
Incline Curls	Incline Bench/Dumbell
Supine Curls	Supine Bench/Dumbell

B. EXTENSORS

BASIC EXERCISES	EQUIPMENT
French Press	Barbell/Dumbell
Supine Triceps Extension	Barbell/Dumbell
Parallel Bar Dips	Parallel Bar
Nautilus Curl/Triceps Machine	Nautilus Curl/Triceps Machine
Triceps Pull Down	Universal Pull Down Machine
Dumbell Kick Back	Dumbell

C. FOREARM

BASIC EXERCISES	EQUIPMENT
Reverse Curl	Barbell/Dumbell
Wrist Curl	Barbell/Dumbell
Reverse Wrist Curl	Barbell/Dumbell
Zottman Curl	Dumbell
Universal Wrist Rolls	Universal Wrist Roll Machine

PART VI HURRICANES SUMMER RUNNING PROGRAM

RUNNING PROGRAM

THE PURPOSE OF THIS PROGRAM WAS DEVELOPED BECAUSE ATHLETES DO NOT KNOW HOW TO RUN PROPERLY. WITHOUT GOING INTO A TEXT BOOK DEFINITION OF RUNNING, THE PROPER FORM SHOULD BE AN OPPOSITE ARM AND LEG MOVEMENT.

THE RUNNING PROGRAM WHICH WE WILL DISCUSS HAS BEEN INSTITUTED IN A NUMBER OF MAJOR COLLEGES AND THE UNIVERSITY OF TENNESSEE IS GIVEN CREDIT FOR ITS DEVELOPMENT. THERE ARE FIVE MAIN COMPONENTS OR PHASES. THE FIRST PHASE WE WILL CALL "KILLING GRASS". THIS IS PERFORMED BY LIFTING EACH FOOT ABOUT SIX INCHES OFF THE GROUND AND STEPPING ABOUT SIX TO EIGHT INCHES FORWARD (HEELS NEVER TOUCH THE GROUND). EACH ARM IS FORCED FROM THE RIGHT OR LEFT SIDE OF THE BODY, (CHEST) TO A LITTLE PAST THE CENTER OF THE CHEST, AND RETURNED TO SIDES. IT IS DONE RAPIDLY, AND FOR A DISTANCE OF 10 to 15 YARDS.

THE NEXT PHASE IS CALL "HIGH STEPPING". RUNNING ON THE TOES AND BALL OF THE FEET THE LEGS ARE LIFTED SO THE KNEES ARE AT CHEST LEVEL. WHEN THE BALLS OF THE FEET HIT THE GROUND YOU SHOULD HAVE TRAVELED ABOUT 2 FEET FOR EACH STEP. THE ARM MOVEMENT IS THE SAME AS PHASE 1. THE DISTANCE FOR PHASE 2 IS 20 YARDS.

PHASE 3 IS CALLED "TENNESSEE TROT". THE BEGINNING IS SIMILAR TO HIGH STEP, LIFTING THE KNEES TO CHEST LEVEL. THE DIFFERENCE IS WHEN THE KNEE REACHES THE PROPER LEVEL, THE TOE IS KICKED OUT IN FRONT OF THE BODY AS FAR AS POSSIBLE (1 TO 2 YARDS) WHILE MAINTAINING ONE'S BALANCE. WHEN THE BALL OF THE FOOT COMES IN CONTACT WITH THE GROUND IT GRIPS THE GROUND AND THE OPPOSITE FOOT REPEATS THE PROCEDURE. THE ARM MOTION IS THE SAME AS THE TWO PREVIOUS PHASES. THE DISTANCE SHOULD BE ABOUT 30 YARDS.

THE 4TH PHASE IS THE "ONE LEGGED HOP". THE IDEA OF THIS PHASE IS NOT DISTANCE BUT HEIGHT. THE HEEL OF THE FOOT DOES NOT COME IN CONTACT WITH THE GROUND. HOP ONLY ON THE BALLS OF THE FEET, STARTING WITH THE RIGHT FOOT HOP ABOUT 10 - 12 TIMES FOR ABOUT 10 YARDS. REPEAT THIS PROCEDURE WITH THE LEFT FOOT. THE ARMS ARE USED TO LIFT YOURSELF OFF THE GROUND IN AN EXAGGERATED MOTION. TOTAL DISTANCE COVERED 20 YARDS, 10 YARDS ON RIGHT FOOT, 10 YARDS ON LEFT FOOT.

THE 5TH AND FINAL PHASE IS THE "BUNNY HOP". THE ARM ACTION IS EXAGGERATED JUST AS IN THE 4TH PHASE FOR THE PURPOSE OF LIFTING (GETTING HEIGHT). THE MAJOR DIFFERENCE IS HOPPING ON BOTH FEET AT THE SAME TIME.

AFTER COMPLETING 2 OR 3 REPS OF EACH PHASE PRACTICE THE PROPER FORM OF RUNNING. KEEP YOUR HEAD STILL, HANDS LOOSE AT CHEST LEVEL AT YOUR SIDE AND LIFTING KNEES HIGH. RUN HALF SPEED 30 YARDS FOR FORM, REPEAT THREE TIMES. RUN AT 3/4 SPEED FOR 30 YARDS FOR FORM, REPEAT THREE TIMES. RUN AT FULL SPEED FOR 30 YARDS WITH FORM, REPEAT TWO TIMES.

DO THIS FORM RUNNING BEFORE YOU DO YOUR DAYS CONDITIONING ROUTINE.

UNIVERSITY OF MIAMI

Football
P.O. Box 248167
Coral Gables, Florida 33124
Telephone (305) 284-3822

Summer, 1983

UNIVERSITY OF MIAMI
FOOTBALL RUNNING PROGRAM

A. GOALS:

1. COME TO TRAINING CAMP IN TOP CONDITION TO PLAY HURRICANE WINNING FOOTBALL!
2. TOTAL EXHAUSTION AFTER EACH WORK-OUT!

B. INSTRUCTIONS:

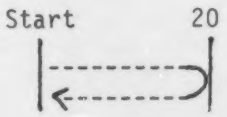
1. Stretching must be done 10-15 minutes before and after work-out.
2. Linebackers and Defensive Backs: Do a series of backward running.
3. Linemen: Do grass drills.

C. MAY - JUNE - JULY - AUGUST:

1. The month of MAY is used to relax - DO NOT GET OVERWEIGHT or OUT OF SHAPE!
2. The month of JUNE is used to begin running - distance only. NO SPRINTS!
3. The months of JULY and AUGUST should be sprints, distance, agilities and skills - ALL OUT EFFORT!

D. HOW TO RUN THE PROGRAM:

1. How to run the 20's: 20 yards only working on explosive starts.
2. How to run the 40's: Run 20 yards down - touch line - then run 20 back with no rest (total 40 yards).
   a. Only rest 6 seconds between each 40 yards.
   b. These will be run in either 1/2, 3/4 or full speed.



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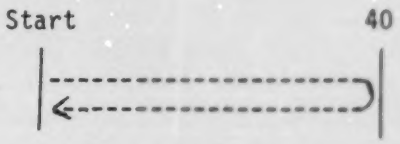
3. How to run the 80's: Run 40 yards down - touch line - then run 40 yards back with no rest (total 80 yards) - to be run at full speed.

   a. Only rest 10 seconds between each 80 yards.

   b. Run each 80 yards in 13-15 seconds.



4. Do not run sprints on days you do heavy leg work with the weights.

5. How to run 100, 220 and 440 yard sprints:

   a. The 100 yard sprints are to be run in 13 seconds or better, and rest 20 seconds between each 100 yards.

   b. The 220 yard sprints are to be run in 30-40 seconds, and rest 40 seconds between each 220 yards.

   c. The 440 yard sprints are to be run in 90 seconds or better, and rest 90 seconds between each 440 yards.

6. Football Skills: You must begin your skills by the 3rd week.

7. During Two-A-Day Workouts: Run in the morning, and afternoon workout should be running and football skills.

8. Run in the HEAT OF THE DAY.

9. If you are not totally exhausted - DO MORE. Your goal - total exhaustion.

10. If you are in TOP RUNNING CONDITION, you will be ready to play football and lessen your chance for INJURY.

HAVE A GREAT SUMMER!

Michael O'Shea
Head Athletic Trainer

RUNNING PROGRAM
SUMMER - 1983

May 1 - 30: RELAX MONTH - Do all types of activities to relax.

DO NOT GET OUT OF SHAPE!

May 30 - June 3: 1 Mile X 3 days a week in 8-9 minutes a mile.

June 6 - 10: 2 Miles X 3 days a week in 8-9 minutes a mile.

June 13- 17: 2½ Miles X 3 days a week in 8-8½ minutes a mile.

June 20- 24: 3 Miles X 3 days a week in 8 minutes a mile, or better.

WEEK #1

JUNE 27 - JULY 1
(3 Days)

3/4 SPEED ALL WEEK

JUNE 27 (MONDAY)

6 X 40's

6 X 80's

2 X 100's

1 X 220

JUNE 29 (WEDNESDAY)

3 X 50 Yard Dashes (15 seconds rest between each)

3 X 100's

2 X 220's

1 Mile Run (8 minutes)

JULY 1 (FRIDAY)

4 X 20 Yard Starts

6 X 40's

6 X 80's

2 X 100's

1 X 220

WEEK #2

JULY 4 - JULY 8
(3 Days a Week)

FULL SPEED WORK UNTIL THE END

JULY 4, MONDAY (or JULY 5, TUESDAY)

7 X 40's

7 X 80's

2 X 100's

2 X 220's

Jog 1 Mile (8-10 Minutes)

JULY 6 (WEDNESDAY)

6 X 20 Yard Starts

6 X 100's

3 X 220's

1 X 440

JULY 8 (FRIDAY)

4 X 20 Yard Starts

7 X 80's

4 X 100's

4 X 220's

Jog 1 Mile (8-10 Minutes)

WEEK #3

JULY 11 - 15
(3 Days a Week)

BEGIN FOOTBALL SKILLS AFTER RUNNING

JULY 11 (MONDAY)

8 X 20 Yard Starts

8 X 80's

6 X 100's

1 X 220

1 Set Gassers

Jog 1½ Miles (15 Minutes)

JULY 13 (WEDNESDAY)

5 X 50's (50 Yard Sprints)

10 X 100's

3 X 220's

2 X 440's

JULY 15 (FRIDAY)

4 X 20's (20 Yard Sprints)

6 X 50's

8 X 100's

4 X 220's

1 X 440's

2 Sets of Gassers (Rest between each 45 seconds)

Run 1½ Miles (12-14 Minutes)

WEEK #4

JULY 18 - 22
(4 Days a Week)

REMEMBER - FOOTBALL SKILLS AFTER RUNNING

JULY 18 (MONDAY)

6 X 20 Yard Starts

10 X 80's

6 X 220's

Jog 1 Mile (9-10 Minutes)

JULY 20 (WEDNESDAY)

Shuttle Run - 5, 10, 15 Yards X 3 Sets (Rest 20 seconds between each)

Front - Backward Running - Run 15 Yards - Then back 15 yards X 3 Sets
(Rest 20 seconds between each)

Five Yard Shuttles - 5 Yard + 5 Yards X 10 (5 + 5 = 1 Repetition)

6 X 100's

3 X 220's

JULY 21 (THURSDAY)

Run 1½ Miles in 12-13 Minutes

JULY 22 (FRIDAY)

10 X 80's

4 X 220's

2 X 440's

3 Sets of Gassers (40 seconds rest between each)

WEEK #5

JULY 25 - 29
(5 Days a Week)

JULY 25 (MONDAY)

10 X 80's

10 X 100's

4 X 220's

JULY 26 (TUESDAY)

Shuttle Run - 5, 10, 15 X 3

Five Yard Shuttles - 5 + 5 (10 Repetitions X 3 Sets)

6 X 100's

2 X 220's

JULY 27 (WEDNESDAY)

12 X 100's

- 6 X 220's

JULY 28 (THURSDAY)

Run 1½ Miles (Best time)

JULY 29 (FRIDAY)

6 X 50's

3 X 100's

3 X 220's

2 X 440's

WEEK #6

AUGUST 1 - 5
(5 Days a Week)

BEGIN TWO-A-DAY WORKOUTS

	1ST	2ND
AUGUST 1 (MONDAY)	3 Sets of Gassers 6 X 50's 8 X 80's	6 X 20 Yard Starts Shuttles 5, 10, 15 X 3 Football Skills
AUGUST 2 (TUESDAY)	Jog 1½ M[illegible] (12-14 Minu[illegible])	Football Skills
AUGUST 3 (WEDNESDAY)	6 X 50's 6 X 440's	Jog 1-2 Miles Football Skills
AUGUST 4 (THURSDAY)	Jog 1½ Miles (12-14 Minutes)	6 X 100 Yards Football Skills
AUGUST 5 (FRIDAY)	3 Sets of Gassers 6 X 100's 6 X 220's	2 Sets of Gassers Football Skills

WEEK #7

AUGUST 8 - 12
(5 Days a Week)

TWO-A-DAY WORKOUTS

	1ST	2ND
AUGUST 8 (MONDAY)	10 X 100's 10 X 220's	3 Sets of Gassers Football Skills
AUGUST 9 (TUESDAY)	Run 1½ Miles (Best Time) Shuttle Run 5, 10, 15 (Best time)	4 X 50's Football Skills
AUGUST 10 (WEDNESDAY)	8 X 440's	2 Sets of Gassers Football Skills
AUGUST 11 (THURSDAY)	8 X 20 Yard Starts 8 X 40 Yard Sprints 8 X 100 Yard Sprints	4 X 50's Football Skills
AUGUST 12 (FRIDAY)	4 X 100's 4 X 220's 4 X 440's	6 X 20's 6 X 50's Football Skills

SUMMER RUNNING CONDITIONING PROGRAM

ON THE NEXT PAGE YOU WILL FIND A RUNNING PROGRAM. THIS WILL HELP YOU TO PREPARE FOR CAMP IN AUGUST. IT IS MOST IMPORTANT THAT YOU REMEMBER THAT YOUR PHYSICAL CONDITION IS OF THE UTMOST IMPORTANCE.

IF YOU ARE NOT FROM FLORIDA, THE CONDITIONING OF YOUR BODY IS EVEN MORE IMPORTANT. IT GETS EXTREMELY HOT AND HUMID HERE.

POST THE NEXT PAGE UP IN YOU ROOM, OR SOMEWHERE WHERE YOU WILL SEE IT. THIS WILL REMIND YOU TO TRAIN. THE PROGRAM IS VERY EASY TO READ AND EASY TO FOLLOW.

TOP PHYSICAL CONDITION IS VITAL!

THE FOLLOWING IS AN ALTERNATIVE RUNNING PROGRAM

SUMMER RUNNING PROGRAM

TYPE OF RUNNING	JUNE WEEK	PROGRAM TRY TO FIND 440 YD TRACK OR MEASURE OUT A 1 MILE DISTANCE	TIMES PER WEEK
DISTANCE	1	1 MILE	2
DISTANCE	2	1½ MILE	3
DISTANCE	3	2 MILE	3
DISTANCE	4	1 MILE (IN 7 MINUTES)	3
VARIOUS SPEEDS WHILE RUNNING DISTANCE	JULY WEEK 1	1 MILE (RUN ½ MILE FAST, JOG ½ AT A SLOW PACE)(NEVER STOP RUNNING)	3
VARIOS SPEEDS WHILE RUNNING DISTANCE	2	2 MILES (RUN ½ MILE SLOW, ½ MILE FAST, ½ MILE SLOW, ½ MILE FAST) (NEVER STOP RUNNING)	3
RUN SHORT DISTANCES REST AND RUN AGAIN	3	5-220 YDS 50 SECS OR LESS, REST 90 SECONDS	3
NUMBERS OF SPRINTS WITH PLENTY OF REST BETWEEN EACH SPRINT	4	10-100 YDS SPRINTS 4-40 YD SPRINTS	3
EXPLOSIVE STARTS REST BETWEEN EACH SPRINT CONCENTRATE ON START	AUGUST WEEK 1	4-100 YD SPRINTS 4- 40 YD SPRINTS 4- 20 YD SPRINTS	3
SAME AS WEEK 1	2	4-100 YD SPRINTS 4- 40 YD SPRINTS 4- 20 YD SPRINGS	3

CONDITIONING RUNNING PROGRAM

THERE ARE NO DOUBTS THAT IN COMPETITION, THAT TIME AND AGAIN THE ATHLETE WHO IS VICTORIOUS IS THE ATHLETE WHOSE LEGS, AND CARDIOVASCULAR SYSTEM ARE IN SUPERIOR CONDITION.

EVERY THREE WEEKS TEST YOURSELF, FIND OUT WHAT TYPE OF SHAPE YOU'RE IN, BECAUSE LINEMEN MUST COME INTO CAMP RUNNING A MILE AND A HALF IN 12 MINUTES. THE BACKS MUST COMPLETE A MILE AND THREE QUARTERS IN 12 MINUTES. SO EACH PLAYER START NOW, AND BY CAMP BE READY

ON A TRACK (440) LAPS		FITNESS MEASUREMENT
	LINEMEN	
4	LESS THAN 1.0 MILE	3 3/4 OR LESS LAPS — VERY POOR
5	1.0 - 1.25	4-5 LAPS — FAIR
6	1.50	6 LAPS — GOOD
7	1.75 OR BETTER	6 3/4 LAPS — EXCELLENT
	BACKS	
5	LESS THAN 1.25	5 OR LESS LAPS — VERY POOR
6	1.50	6 LAPS — FAIR
7	1.75	7 LAPS — GOOD
8	2.0 OR BETTER	8 LAPS — EXCELLENT

COLLEGE

BACKS AND ENDS

DISTANCES

RATING	10 yds	20 yds	30 yds	40 yds
Excellent	1.5-1.6	2.6-2.7	3.6-3.7	4.6-4.7
Good	1.7	2.8	3.8-3.9	4.8-4.9
Average	1.8	2.9-3.0	4.0-4.1	5.0-5.2

LINEMEN DISTANCES

RATING	10 yds	20 yds	30 yds	40 yds
Excellent	1.7-1.8	2.8-2.9	3.9-4.0	4.9-5.1
Good	1.9	3.0	4.1	5.2
Average	2.0	3.1-3.2	4.2-4.3	5.3-5.5

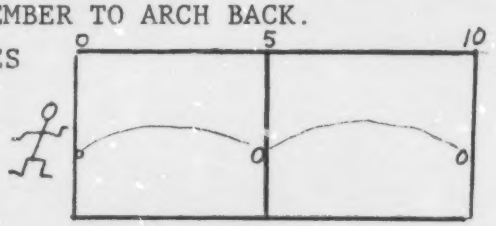
ABOVE ARE LISTING OF THE TIMES THAT ARE USED BY THE PROFESSIONALS TO EVALUATE AN ATHLETES SPEED BY POSITION.

USE THE RUNNING PROGRAM AND THE EXERCISES DEVELOPED TO HELP IMPROVE YOUR STYLE OF RUNNING.

AGILITY DRILLS BY POSITIONS

OFFENSIVE LINEMEN:

1. CRAB DRILL - 4 X 10 YDS.
   POSITION YOURSELF ON ALL FOURS WITH YOUR HEAD UP AT ALL TIMES. DRAW THE KNEES UP TO THE CHEST AS YOU RUN; EMPHASIZE SPEED AND QUICKNESS IN THIS DRILL.
2. STANCE AND STARTS - 4 OR 5 X 5 YDS.
   CONCENTRATE ON GOOD STANCE WITH LOW EXPLOSION OF FIRST STEPS. REMEMBER TO ARCH BACK.
3. TRIPLE JUMP 2 OR 3 TIMES



   OBJECT - 3 JUMPS - OVER TEN YARDS IS EXCELLENT. UNDER 10 YARDS, YOU NEED TO IMPROVE. STAND IN TWO POINT FOOTBALL POSITION, WITH TOES ON THE LINE. RELAX, GATHER YOURSELF, DRIVE OFF BALLS OF BOTH FEET, EXTEND BODY UP AND OUT.

4. TRY TO RUN OVER SOME OBJECT (TIRES, ROPE, CONES, BAGS OR TOWELS). USE SHORT CHOPPING STEPS-FRONT AND SIDE REPEAT 4 OR 5 TIMES.

OFFENSIVE CENTERS:

1. PRACTICE SNAPS, EMPHASIZING IMMEDIATE BLOCKING MOVEMENT.
2. PRACTICE SNAPS FOR PUNTS (14-15 YARDS) EMPHASIZING POWER, USING BOTH HANDS

QUARTERBACKS:

1. REPEAT OUR DROP BACK RETREAT SEVEN YARDS (RIGHT OR LEFT) TO THE INSIDE HIP OF THE TACKLE. EMPHASIZE THE SPEED OF RETREAT AND QUICK SET UP TO THROW.

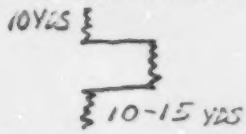
DEFENSIVE LINEMEN: (MIDDLE GUARDS AND TACKLER)

1. QUICK DRILLS:
   a. FORWARD ROLLS - KEEP CHIN TUCKED AS YOU ROLL FORWARD.
   b. SEAT ROLL - PRE-DRILL POSITION: ON ALL FOURS, HEAD UP, BACK PARRALLEL TO GROUND, FEET SPREAD A LITTLE WIDER THAN SHOULDER WIDTH. ALTERNATE ROLLING ON SEAT (RIGHT AND LEFT), RETURNING TO PRE-DRILL POSITION, EMPHASIZING QUICKNESS OF ROLL AND CONSTANT MOVING OF FEET IN CHOPPING MOTION. REPEAT 8-10 TIMES.
   c. GRASS DRILL - PRE-DRILL POSITION: GOOD "BROKEN DOWN 2 POINT HIT POSITION".
      1. START FEET "RUNNING IN PLACE".
      2. DROP TO GROUND CHEST AND LEGS FLAT.
      3. RETURN TO PRE-DRILL POSITION, FEET MOVING.
      4. REPEAT 10-15 TIMES.
   d. CRAB DRILL - PRE-DRILL POSITION: SAME AS FOR SEAT ROLL
      1. MOVE ALTERNATING FORWARD, BACKWARD, SIDEWAYS, EMPHASIZING QUICKNESSS OF FEET, KEEPING HEAD UP AND BACK PARRALLEL TO GROUND, DRIVING LEGS AND KNEES UP UNDER CHEST.

2. AGILITY DRILLS:
   a. CHOP YOUR FEET TWICE IN BETWEEN EACH BAG OR SOME OBJECT: TIRES, CONES, ETC. KEEP YOUR BASE LOW, SHOULDER UPFIELD.
   b. TAKE OFF, GO AS FAST AS YOU CAN WITH ONE STEP BETWEEN THE BAGS. KEEP YOUR BASE LOW, SHOULDERS UPFIELD, EYES UPFIELD.
   c. HIGH STEP THROUGH AS FAST AS YOU CAN GO. HIT EACH HOLE OR SQUARE.

DEFENSIVE BACKS:

1. BACK-UP - BACK UP DOWN A YARD LINE AS FAST AS YOU CAN 25-30 YARDS AND CONCENTRATE ON KEEPING YOUR SHOULDERS AND BODY WEIGHT FORWARD. WITHOUT STRAYING OFF THE YARD-LINE MAKE A COUPLE OF 180° TURNS, (ONE WAY EACH). THE BODY SHOULD MAKE A COMPLETE TURN OUT, KEEP THE HEAD UPFIELD.
2. 90° TURN - START BACKING UP FOR AROUND TEN YEARDS, THEN MAKE A 90° CUT LEFT, AS IF COVERING AN OUT PATTERN. WHEN YOU CUT TO YOUR LEFT, PIVOT OFF YOUR RIGHT FOOT. WHEN PLANTING THE RIGHT FOOT, IT NOT ONLY STOPS YOUR MOMENTUM BACKWARDS, BUT GETS YOU MOVING TO THE LEFT. BURST FOR 10-15 YARDS, THEN BACK UP ANOTHER TEN YARDS AND MAKE THE SAME CUT TO THE RIGHT. REPEAT THIS PROCEDURE FOUR OR FIVE TIMES. TRY TO MAKE CUTS AT FULL SPEED AND EMPHASIZE KEEPING THE SHOULDERS AND BODY WEIGHT FORWARD.



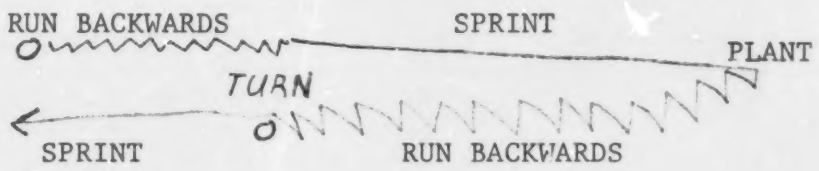
3. 45° DRILL - START BACKING UP FORWARD TEN YARDS, BREAK AT A 45° ANGLE AS IF COVERING A POST PATTERN. IF YOU BREAK TO THE LEFT YOU WILL PIVOT OFF THE RIGHT FOOT. CONCENTRATE ON NOT OVER-EXTENDING THAT FIRST STEP WITH THE LEFT FOOT. BURST FOR 6-10 YARDS. REPEAT THIS DRILL FOR FOUR OR FIVE TIMES.

OFFENSIVE RUNNING BACKS:

1. STARTS - TWO POINT EXPLOSIVE STARTS. SPRINT 10 YARDS. WALK FIVE YARDS RESET. REPEAT PROCESS AGAIN. DO TWO 100 YARD SETS. PRACTICE STARTS MOVING STRAIGHT AHEAD AND LATERALLY.
2. SPINS - EXPLODE OUT OF YOUR STANCE, SPRINT 5 YDS,SLOW DOWN TO 3/4 SPEED,IMAGINE A DEFENDER AHEAD OF YOU, WHEN YOUR WITHIN 2 FEET OF THE DEFENDER, SPIN TO ONE SIDE OR THE OTHER. TO SPIN RIGHT PLANT THE BALL OF THE RIGHT FOOT, SPIN 360° ON THE RIGHT FOOT. AS YOU SPIN, PULL THE LEFT LEG IN, UP TO CHEST AND AROUND AS YOU SPIN. UPON COMPLETION OF THE SPIN PLACE THE LEFT FOOT DOWN, AND SPRINT 10 YARDS, REPEAT 5 TIMES.
3. BODY FAKES - MOVING DOWN THE FIELD 50 YARDS IN DISTANCE AT 3/4 SPEED, PRACTICE HEAD, ARM, FOOT, AND HIP FAKES. TWO SETS 30 SECONDS. REST BETWEEN SETS
4. MOVING EXPLOSIVE STARTS - WHILE MOVING DOWN THE FIELD, 3/4 SPEED, QUICKLY CHANGE SPEED AND DIRECTION WHILE ON THE MOVE, AS YOU WOULD IN THE OPEN FIELD, FOLLOWING BLOCKERS. TWO 100 YARD SETS. REST REPEAT.

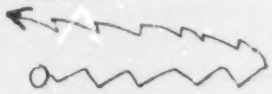
DEFENSIVE ENDS AND LINEBACKERS:

1. FROM A SOUND TWO POINT FOOTBALL POSITION, DRIVE BACKWARDS APPROXIMATELY TEN YARDS, TURN AND SPRINT APPROXIMATELY TEN YARDS, PLANT TO A STOP, RUN BACKWARDS TEN YARDS, TURN AND SPRINT FOR A FINAL TEN YARDS.



REPEAT TWICE. STRESS STAYING IN GOOD FOOTBALL POSITION AS YOU RUN BACKWARDS, WITH HEAD UP. STRESS QUICK TURNS AND GOOD FORM RUNNING DURING SPRINT SEGMENT.

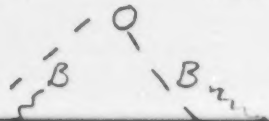
2. FROM A SOUND TWO POINT FOOTBALL STANCE, SHUFFLE SIDEWAYS FOR TEN YARDS, PLANT AND SHUFFLE BACK TO STARTING POINT. DO NOT CROSS FEET, AND STAY "BROKEN DOWN" IN A GOOD FOOTBALL POSITION. REPEAT TWICE.



3. FROM A GOOD TWO POINT FOOTBALL STANCE, TURN AND RUN TO YOUR RIGHT FOR FIVE YARDS, PLANT AND RUN LEFT FOR FIVE YARDS, PLANT AND RUN RIGHT FOR A FEW YARDS, PLANT AND RUN LEFT FOR A FEW YARDS. REPEAT TWICE. EMPHASIZE QUICK CHANGE OF DIRECTION.

4. FROM A GOOD TWO POINT FOOTBALL STANCE, TURN, CROSSOVER, CROSSOVER, AND SHUFFLE BACK AT 45° ANGLE TO A DEPTH OF 10-15 YARDS. IF POSSIBLE, HAVE A FRIEND THROW THE BALL TO YOUR LEFT (RIGHT) TO ALLOW YOU TO DRIVE FOR IT. YOUR DROP DEPTH, THEREFORE, WILL DEPEND ON WHEN THE PASSER IS READY TO DELIVER THE BALL. REPEAT, DROPPING AT 45° ANGLE TO THE OTHER SIDE.

PASSER



PART VII HURRICANES STRENGTH

EVALUATION PROGRAM

MIAMI HURRICANE FOOTBALL

STRENGTH TRAINING EVALUATION PROCESS

EXPLANATION

THREE TIMES A YEAR THE FOOTBALL TEAM WILL BE EVALUATED

THE OBJECTIVES BEHIND THIS PROCESS WILL BE TO:

A) DETECT INCREASES IN MUSCULAR STRENGTH, MUSCULAR ENDURANCE, LEG POWER, SPEED AND CARDIOVASCULAR EFFICIENCY

   1) DURING THE OFF AND SUMMER SEASONS

B) DETECT ANY MUSCULAR STRENGTH, MUSCULAR ENDURANCE AND LEG POWER LOSSES DUE TO

   1) IN-SEASON
   2) INJURY
   3) ATTITUDE PROBLEM WITHIN THE ATHLETE DURING THE ENTIRE YEAR

C) DETECT RECOVERY FROM INJURIES DURING ANY SEASON

THE EVALUATION PROCESS ALSO KEEPS THE COACHES INFORMED ABOUT THE PROGRESS OF THE ATHLETES, AND AT THE SAME TIME KEEPS THE ATHLETES MOTIVATED TO TRAIN WITH MORE INTENSITY.

THE ATHLETES PERFORM SEVEN TO NINE DIFFERENT ITEMS WHEN EVALUATED. THE NUMBER OF ITEMS TO BE TESTED DEPENDS ON WHETHER IT IS THE IN OR OFF-SEASON FOR THE PLAYERS.

THE PLAYERS DO THE FOLLOWING DURING THE FALL AND SPRING FOOTBALL SEASON.

1) PARALLEL SQUAT 1RM
2) BENCH PRESS 1RM
3) SEATED MILITARY PRESS 1RM
4) VERTICAL JUMP INCHES
5) DIPS MAX IN 30 SECONDS
6) CHIN-UPS MAX IN 30 SECONDS
7) SIT-UPS MAX IN 60 SECONDS

THE FIRST THREE ITEMS LISTED ARE DONE ONE DAY, THE LAST FOUR ITEMS ARE DONE ON ANOTHER DAY.

DURING THE OFF-SEASON THE ATHLETES ARE EVALUATED ON THE:

1) PARALLEL SQUAT 1RM
2) BENCH PRESS 1RM
3) SEATED MILITARY PRESS 1RM
4) VERTICAL JUMP INCHES

5) DIPS MAX IN 30 SECONDS
6) CHIN-UPS MAX IN 30 SECONDS
7) SIT-UPS MAX IN 60 SECONDS
8) 40's - 20's
9) 12 MINUTE RUN

THE FIRST THREE ITEMS ARE DONE ONE. THE FOURTH, FIFTH, SIXTH AND SEVENTH ITEMS ARE DONE ANOTHER DAY. THE 40's - 20's AND 12 MINUTE RUN ARE DONE ON THE LAST DAY OF THE EVALUATION WEEK.

THE ATHLETES ARE GIVEN DAYS AND TIMES TO REPORT FOR EVALUATION.

TEAM EVALUATION VERSUS PROGRAM CARD EVALUATION

USING THE PROGRAM CARD AS THE EVALUATION PROCESS CAN BE MISLEADING, PRIMARILY DUE TO THE ATHLETES MISUSE OF THE CARD. THIS CAN BE DONE BY ENTERING THE WRONG WEIGHT USED FOR AN EXERCISE, OR FABRICATING THE NUMBER OF PERFECT REPETITIONS BEING USED FOR THE RESISTANCE FOR A PARTICULAR EXERCISE. THEREFORE WE DO NOT USE THE PROGRAM CARD AS THE MEANS OF EVALUATION. A QUALIFIED TEAM OF INDIVIDUALS UNDER THE STRENGTH COACHES SUPERVISION EVALUATE THE PLAYERS.

ESTABLISHING GRADES (THIS ENTIRE PROCESS IS CURRENTLY BEING REVISED)

THE PROCESS USED TO ESTABLISH A GRADE FOR THE PERFORMANCE AN ATHLETE GIVES ON A PARTICULAR EXERCISE WAS DEVELOPED THIS WAY. THE ENTIRE TEAM WAS BROKEN DOWN INTO WEIGHT CLASSES, USING 14 LBS FREQUENCY DISTRIBUTIONS BETWEEN WEIGHT CLASSES, 150-164 LBS, 165-179 LBS, 180-194 LBS, 195-209 LBS, 210-224 LBS, 225-239 LBS, 240-254 LBS, 255-UP. THIS WEIGHT RANGE COVERS THE ENTIRE TEAMS POSSIBLE WEIGHT DISTRIBUTIONS.

AFTER THE ATHLETES ARE EVALUATED THEY ARE BROKEN DOWN INTO THEIR CLASSIFICATIONS, FROM A PREDETERMINED SCALE DEVELOPED FOR WEIGHT, INCHES, SPEED, OR REPETITIONS DONE FOR A PARTICULAR EXERCISE. THE WEIGHT, INCHES, SPEED, OR REPETITIONS ARE GIVEN A LETTER GRADE FROM A TO E.

DETERMINING WHEN TO ESTABLISH THE GRADING SCALE

THE GRADING SCALE FOR EACH WEIGHT CLASS WAS DEVELOPED FOR EACH INDIVIDUAL EXERCISE. THIS WAS DETERMINED DURING FIRST THIRD OF THE FOOTBALL SCHEDULE. THE LOGIC BEHIND THE ESTABLISHING OF A GRADING SCALE TO BE USED YEAR ROUND BY THE FIRST THIRD OF THE FOOTBALL SCHEDULE WAS DONE BECAUSE THE STRENGTH AND SPEED DEVELOPED DURING THE SUMMER WOULD BE UNCOMMONLY HIGH, BECAUSE OF THE SUMMER LAYOFF. BY ALLOWING FOR FALL PRACTICE AND A FEW GAMES TO REDUCE THE STRENGTH AND SPEED DEVELOPED OVER THE SUMMER, A TRUER MEASUREMENT OF THE INDIVIDUALS GAME STRENGTH WOULD BE MEASURED. THIS WOULD ALLOW FOR EVEN SUBSTANTIAL STRENGTH AND SPEED INCREASES IN THE OFF-SEASON.

THE GRADING SCALE THUS ALLOWS FOR BODY WEIGHT LOSS, AND STRENGTH LOSS DURING THE REGULAR SEASON, AND SPRING SEASON, WHILE SUPPLYING FOR SUBSTANTIAL GRADE INCREASES IN THE OFF AND SUMMER SEASON. BECAUSE OF THE FACT THAT AN ATHLETE WILL INCREASE IN STRENGTH DURING THE OFF AND SUMMER SEASON AND THIS INCREASE IN STRENGTH WILL REFLECT AN INCREASE IN BODY WEIGHT, THE SCALE REFLECTS THE POSSIBLE STRENGTH AND BODY LOSS THAT COULD AFFECT THE GRADE AN ATHLETE WOULD RECEIVE FOR A PARTICULAR EXERCISE DURING THE IN-SEASON, WHILE SUPPLYING ENOUGH RANGE FOR THE ATHLETE TO INCREASE TO A HIGHER GRADE DURING THE OFF AND SUMMER SEASON. HAD THE SCALE BEEN DETERMINED DURING THE SUMMER OR OFF-SEASON THE STANDARDS WOULD HAVE BEEN TOO HIGH FOR THE IN AND SPRING FOOTBALL SEASON.

GRADES

A GRADE FOR EACH EXERCISE FOR EVERY WEIGHT CLASS WAS ESTABLISHED BY MATHEMATICALLY EVALUATING THE ENTIRE TEAM. BREAKING THE END RESULTS DOWN INTO THE RESPECTED WEIGHT CATAGORIES. 150-164, 165-179, 180-194, 195-209, 210-224, 225-239, 240-254-255 AND UP, THEN EACH WEIGHT CLASS WAS ANALIZED INDIVIDUALLY. THE HIGHEST WEIGHT, REP, OR INCHES WERE COMPARED TO THE POSSIBLE LOWEST WEIGHT, REP, OR INCHES PERFORMED BY THE ATHLETES. THE HIGHEST ITEMS ESTABLISHED FOR EACH EXERCISE WERE THE B RANGE, THE LOWEST POSSIBLE ITEMS FOR EACH EXERCISE MAKE UP THE D RANGE OF A GRADE. FROM THOSE TWO EXTREMES A FREQUENCY DISTRIBUTION WAS ESTABLISHED FOR AN A, C, AND E GRADE. SOME OF THE WEIGHT CATAGORIES REFLECT A HIGHER STANDARD THAN NORMALLY DESIRED. THIS WAS DONE TO COMPLY WITH THE DESIRE OF SOME OF THE COACHES. IT IS THE GOAL THAT ALL OFFENSIVE LINEMEN BE CAPABLE OF BENCH PRESSING 380 LBS BY SPRING BALL OF THEIR SOPHOMORE YEAR.

AT ALL TIMES NO ATHLETE SHOULD DROP BELOW A C AVERAGE FOR HIS WEIGHT CLASS. UNLESS INJURY OCCURS.

BREAKDOWN OF THE GRADING SCALE

ASIDE FROM EACH INDIVIDUAL EXERCISE INDICATING A STRENGTH LEVEL, ALL EXERCISES COMBINED WILL ALSO INDICATE AN OVERALL STRENGTH LEVEL FOR THE ATHLETE.

THE GRADES ARE GIVEN A POINT SCALE AS WELL.

POINTS

A)	720	. . . . . 90 POINTS
B)	640 - 719	. . . . . 80 POINTS
C)	560 - 639	. . . . . 70 POINTS
D)	480 - 559	. . . . . 60 POINTS
E)	400 - 479	. . . . . 50 POINTS

THE POINTS ARE TALLIED UP FOR THE EXERCISES PERFORMED, AND THAT TOTAL NUMBER OF POINTS INDICATES AN ATHLETES OVERALL STRENGTH LEVEL. AN ATHLETE MUST MAINTAIN 560-639 POINTS TO BE AT A SATISFACTORY STRENGTH LEVEL.

IF ANY ATHLETE IS INJURED HE PERFORMS AS MANY OF THE EXERCISES AS POSSIBLE, AND IS GIVEN AN OVERALL STRENGTH LEVEL FROM THE AVERAGE OF THE EXERCISES PERFORMED. EACH EXERCISE IS GIVEN A GRADE. ALL THE POINTS FOR THOSE GRADES ARE ADDED UP AND THE POINTS ARE DIVIDED BY NUMBER OF EXERCISES PERFORMED. THAT NUMBER CORRESPONDS TO A GRADE LEVEL, NOT A POINT GRADE, BUT A LETTER GRADE.

EACH LIFTING EXERCISE IS PERFORMED FOR 1 REPETITION MAXIMUM.

USE OF FREE WEIGHT TO EVALUATE

THE USE OF ISOTONIC OLYMPIC EQUIPMENT IS USED FOR THE EVALUATION OF THE ATHLETES STRENGTH INCREASES. WE HAVE NO OTHER MEANS OF EVALUATING AN ATHLETES STRENGTH GAINS.

TO MAINTAIN THE PROPER NEUROLOGICAL RESPONSES ALL OF OUR ATHLETES TRAIN WITH ISOTONIC EQUIPMENT DURING ONE DAY OF THE TRAINING WEEK, REGARDLESS OF THE PROGRAM BEING USED. EVEN IF AN ATHLETE IS USING HIGH INTENSITY ONE SET TO MOMENTARY MUSCUAR FAILURE PROGRAM, HE WILL TRAIN ONE DAY MULTIPLE SETS ON ISOTONIC EQUIPMENT. THIS WILL ALLOW FOR PROPER ADAPTION TO ISOTONIC FREEWEIGHT, THUS APPLYING THE INCREASE IN STRENGTH FROM THE HIGH INTENSITY ONE SET TO MOMENTARY MUSCULAR FAILURE TO MOVEMENTS WITH ISOTONIC EQUIPMENT.

OF COURSE FOR OUR ATHLETES WHO ARE PSYCHOLOGICALLY MOTIVATED TO TRAIN INTENSELY WITH ISOTONIC FREE WEIGHT, PERFORMING MULTIPLE SETS CREATES NO PROBLEM FOR THE ATHLETE COME EVALUATION TIME.

BY HAVING ALL THE PLAYERS TRAIN AT LEAST ONE DAY DURING THE WEEK ON ISOTONIC FREE WEIGHT, THE ATHLETES WILL NOT BE TOTALLY UNPREPARED TO BE EVALUATED ON ISOTONIC EQUIPMENT. THUS THE MEASUREMENT WILL BE A TRUER MEASUREMENT OF AN ATHLETES STRENGTH WITH ISOTONIC OLYMPIC EQUIPMENT.

ISOTONIC FREE WEIGHT IS ALSO USED TO EVALUATE BECAUSE OF THE PREVALENT USE OF ISOTONIC EQUIPMENT BY PROFESSIONAL FOOTBALL SCOUTS, OTHER UNIVERSITIES, AND COLLEGES TO MEASURE THE ATHLETES STRENGTH LEVEL.

RULES FOR EXERCISES

SQUAT

The individual stands erect. At his will the individual will lower the body until the thickest part of the thigh is parallel to the floor. Then recover to the upright position.

NO CREDIT SQUAT

1) Failure to go parallel
2) Double bouncing before coming erect.
3) Failure to come completely erect.

BENCH

Individual assumes a sturdy position on the bench. Feet flat, butt, shoulders, and head securly on the bench. Spotters will be supplied-from one to two spotters are allowed.

The individual places the hands on the bar. The bar is held in a lock out position then lowered to chest. Once the bar touches the chest the bar must be recovered to a fully extended position.

NO CREDIT BENCH

1) Bouncing of bar off the chest.
2) Picking the hips up off the bench.
3) Shifting of the body during the movement.
4) Moving of the feet.
5) Failure to recover the bar back to fully extended position.
6) Sinking of bar into the chest before pushing bar into an erect position.

SEATED MILITARY

The individual will sit in a chair, butt and back firmly against the back of the chair. The bar will be lifted up to individual, or the individual will take the bar into position by himself. The bar pushed from the tops of shoulders to arms length.

NO CREDIT SEATED MILITARY

1) Picking hips up or slanting hips in the chair.
2) Double bouncing of the bar at the shoulders prior to the lift.

VERTICAL JUMP

Individual stands with his side to the wall. The side that faces the wall will be the side with the hand the individual wants to touch with. The entire sideof the individual must be flush against the wall, including the feet. The individual then reaches as high as possible against the side of the wall. Then a yard stick is placed at the tips of the individuals middle finger. The yard stick is held in position by the recorder. Then the

individual, without taking any steps, squats down and jumps touching the ruler with his finger tips. The individual is allowed 3 jumps. (We use a blue yard stick, and use white chalk to mark the fingers)

NO CREDIT JUMPS

1) If the individual takes a step before the jump

CHIN-UPS

Individual hangs from a bar, hands facing him. The individual pulls himself up until the chin is over the bar, and returns to the starting position.

NO CREDIT CHIN-UPS

1) Chin does not go over the bar.
2) Individual does not come all the way down to the starting position with the arms completely straight.
3) Uses feet to climb up the wall. *Individual can rest in chin-up position only.

DIPS

Using a dip station the person starts from an upright position. Upon starting the chest must be lowered until the triceps are parallel to the floor. Then the individual must push-up until the elbow is completely locked out momentarily.

NO CREDIT DIPS

1) Person does not lower the chest down far enough for triceps to be parallel to the floor.
2) Does not fully extend the elbow
3) Use the feet to push the body upward. *Individual can rest in the extended position only.

SIT-UPS

The individual sits on the floor and flexes the knees. (A sit-up board can be used, but the board must be at floor level).The individual positions the hands behind the head, on the stomach, on the hips. Regardless of where the hands are positioned they must remain. Once the hands are in position the individual lays back and sit up until the shoulders pass 90 degrees. Then the individual must return back to floor and touch the back of the upper shoulders.

NO CREDIT SIT-UPS

1) Hands come out of their position.
2) Individual does not come up to at least a 90 degree position.
3) The upper shoulders do not touch the floor.
4) Individual relexes on the floor.

* The person can rest in the sit-up position only.

TEAM STRENGTH EVALUATION'S PROCESS

Aug._____

One complete day is required in order to efficiently evaluate the entire football team. This day is extremely important, it along with the 12-minute run will tell us the teams strength level and the true attitude about playing. Just who came back and who came back ready to play. Those athletes who evaluate out badly should be dealt with harshly.

PROGRAM OUTLINE

Evaluations are broken down into two sessions. A four hour session in the morning and a four hour session in the afternoon.

MORNING SESSION

This time will be spent evaluating the 3 major lifts - squat or leg extension, bench, and seated military press. Players report in the following manner -

8:30-9:30 - Line Backers Running Backs

9:30-10:30 - Defensive Backs, and Receivers

10:30-11:30 - Offensive Line, Kickers, Tight Ends

11:30-12:30 - Defensive Line, and Ends

AFTERNOON SESSION

After lunch the second session begins, this session will evaluate muscular endurance. Dips, chins, vertical jump, and sit-ups will be evaluated. Players report in this manner -

2:00-3:00 - Line Backers, Running Backs

3:00-4:00 - Defensive Backs, and Receivers

4:00-5:00 - Offensive Line, Kickers, and Tight Ends

5:00-6:00 - Defensive Line, and Ends

Evaluation goals ahve been established, for each exercise, for each player. The players have also been told what their goals are prior to evaluation day.

SUMMER STRENGTH, SPEED, AND CONDITIONING EVALUATIONS

EVENTS TO EVALUATE STRENGTH

a) HALF SQUAT 1 RM
b) BENCH PRESS 1 RM
c) MILITARY PRESS 1 RM

EVENT TO MEASURE LEG POWER

a) VERTICAL JUMP

EVENTS TO MEASURE MUSCULAR ENDURANCE

a) DIPS MAX 30 SEC.
b) PULL-UPS MAX 30 SEC.
c) SIT-UPS MAX 60 SEC.

EVENTS TO MEASURE SPEED AND PHYSICAL CONDITION

a) 40's & 20's
b) 12 MINUTE RUN
c) SHUTTLE RUN

EVALUATION PROCEDURE

THE ENTIRE EVALUATION PROCESS WILL BE COMPLETED IN TWO DAYS, USING THE COACHING STAFF AS EVALUATORS. ONE DAY THE 40's, DIPS, PULL-UPS, AND SIT-UPS WILL BE DONE. IN THE AFTERNOON OF THE SAME DAY THE 12 MINUTE RUN WILL BE COMPLETED.

SPECIAL NOTE:

IF COACHES ARE UNABLE TO ACT AS SPOTTERS, THEN THE STRENGTH COACH WILL PROVIDE PERSONNEL QUALIFIED TO ACT AS SPOTTERS.

AUGUST 1980 AGILITY, AND CARDIOVASCULAR EVALUATION

GENERAL PLAN

THE ENTIRE PROCESS TAKES A COUPLE OF HOURS IN THE MORNING. SHUTTLE RUN WILL BE EVALUATED FIRST, THEN THE 12-MINUTE RUN. ALL ATHLETES KNOW EXACTLY HOW FAR THEY MUST RUN IN 12 MINUTES. ANY ATHLETE WHO IS BELOW HIS GOAL WILL RUN EVERY MORNING AT 6:00 AM UNTIL HE COMPLETES HIS REQUIRED LAPS.

FIELD SET-UP SHUTTLE-RUN

USING THE MAIN PRACTICE FIELD, THE OFFENSE WILL USE THE RIGHT SIDE, AND THE DEFENSE WILL USE THE LEFT SIDE LINE. THE SIDE LINE WILL BE USED TO KEEP THE PLAYERS RUNNING IN A STRAIGHT LINE. TO GET THE PLAYERS DONE FASTER BOTH THE OFFENSE AND DEFENSE WILL BE SPLIT-UP. THE FOLLOWING IS MY SUGGESTION:

OFFENSE NORTH END ZONE - HELTON, TROUT, - OFFENSIVE LINE, TIGHTENDS, AND QUARTER BACKS

OFFENSE SOUTH END ZONE - BRODSKY, ALEXANDER, AND STEVENS - RUNNING BACKS, WIDE RECEIVERS.

DEFENSE NORTH END ZONE - ALLEN,VAGOTIS, AND GROSSO - DEFENSIVE LINE AND ENDS

DEFENSE SOUTH END ZONE - LANCE, OLIVADOTTI, AND ARCHER - LINE BACKERS, DEFENSIVE BACKS, KICKERS

AS PLAYERS COMPLETE 2 SHUTTLES, THEY WALK OVER TO TRACK TO GET READY FOR THE 12-MINUTE RUN.

12 MINUTE RUN

AFTER THE SHUTTLE RUN, THE TEAM WILL BE EVALUATED TO FIND OUT IF THEY CAME BACK IN TOP NOTCH SHAPE TO PLAY. ANY PLAYER WHO DOES NOT DO HIS REQUIRED NUMBER OF LAPS WILL BE REQUIRED TO GET UP AT 6:00 AM TO RUN UNTIL HE DOES COMPLETE HIS REQUIRED NUMBER OF LAPS IN 12 MINUTES.

FIELD SET-UP

USING THE 440 TRACK, COACHES WILL BE POSTED AROUND THE TRACK AT APPROXIMATELY THE 110 YARD MARKER. USING THE FORM WITH THE PLAYERS NAMES AND LAP BOX ON IT, THE COACH WILL PLACE A CHECK IN THE APPROPRIATE BOX AS THE PLAYER PASSES HIM. THE PLAYERS MUST HUG THE OUTSIDE GRASSY PORTION OF THE TRACK. AS THE ATHLETE PASSES, MARK THE APPROPRIATE LAP BOX. WHEN THE 12 MINUTE HORN SOUNDS ALL PLAYERS STOP AND THE COACH WILL ESTIMATE HOW MANY YARDS IN FRONT OF HIM A PLAYER IS AND WRITE THE NUMBER OF YARDS IN THE APPROPRIATE LAP BOX.

COACH SET-UP

THIS IS A TENTATIVE SET-UP, THE COACHES MAY CHANGE THEIR POSITION IF THEY WISH. THIS IS MY SUGGESTION.

AT THE STARTING LINE - KIM HELTON, RICK LANCE
FIRST 110 YARD MARK - BRODSKY, TROUT, ARCHER
SECOND 220 YARD MARK - STEVENS, ALEXANDER, GROSSO
THIRD 330 YARD MARK - OLIVADOTTI, ALLEN, VAGOTIS

COACH GANONG WILL HANDLE THE HORN. THE HORN WILL SOUND AT ELEVEN MINUTES AND THIRTY SECONDS AND AGAIN AT THE TWELVE MINUTE MARK.

STRENGTH FILE AND STRENGTH CHART

STRENGTH FILE

EACH ATHLETE IS GIVEN A STRENGTH FILE UPON ENTERING THE UNIVERSITY OF MIAMI. THIS FILE HOLDS EVERY PIECE OF MATERIAL ABOUT THE ATHLETES STRENGTH PROGRESS WHILE AT THE UNIVERSITY. THE FILE HOLDS THE COMPLETED PROGRAM CARDS, AND STRENGTH CHARTS OF EACH PLAYER.

STRENGTH CHART

THE STRENGTH CHART IS A CHART WHICH IS USED BY BOTH THE STRENGTH COACH AND FOOTBALL COACHES TO PLOT THE PROGRESS OF THE ATHLETES IN ALL THE AREAS OF CONDITIONING. THE CHART CONTAINS ALL THE INFORMATION FOR ONE YEARS EVALUATION. THIS PERIOD RUNS FROM AUGUST TO APRIL OF THE FOLLOWING YEAR. THE CHARTS CONTAIN THE BODY WEIGHT FOR EACH EVALUATION PERIOD, GIRTH MEASUREMENTS, STRENGTH GOALS FOR THE OFF AND SUMMER PERIOD. BODY WEIGHT GOALS FOR THE OFF AND SUMMER PERIODS. STRENGTH EVALUATIONS FOR EACH OF THE FIVE EVALUATIONS TAKEN DURING THE AUGUST TO APRIL PERIOD. THE CARD ALSO HAS THE SPEED AND CARDIOVASCULAR EVALUATIONS FOR THE YEARLY PERIOD, AND FINALLY A SPACE FOR COMMENTS AT THE BOTTOM OF THE CHART.

UNIVERSITY OF MIAMI STRENGTH CHART

August 19_____April 19_____

NAME _____ BODY WEIGHT 1)_____2)_____3)_____

HEIGHT 1)_____2)_____3)_____

GIRTH MEASUREMENTS

A) NECK 1)_____2)_____

B) PECTORALS 1)_____2)_____

C) RECTUS ABDOMINUS 1)_____2)_____

D) HIPS 1)_____2)_____

E) THIGHS 1)_____2)_____

F) CALVES 1)_____2)_____

G) BICEPS 1)_____2)_____

H) FOREARM 1)_____2)_____

STRENGTH GOALS

A) HALF SQUAT (1RM) OR MAX REP BY WT LEG EXT _____DATE_____ _____DATE_____

B) BENCH PRESS (1RM) _____DATE_____ _____DATE_____

C) MILITARY PRESS (1RM) _____DATE_____ _____DATE_____

MUSCULAR ENDURANCE EXERCISES AND LEG POWER EVALUATION

A) VERTICAL JUMP _____DATE_____ _____DATE_____

B) CHINS _____DATE_____ _____DATE_____

C) DIPS _____DATE_____ _____DATE_____

D) SIT-UPS _____DATE_____ _____DATE_____

BODY WEIGHT GOALS

3)_____DATE_____4)_____DATE_____

STRENGTH EVALUATIONS

A) LIFTS HALF SQUAT (1RM) OR MAX REPS BY WT ON LEG EXT 1)_____2)_____

B) BENCH (1RM) 1)_____2)_____

C) MILITARY PRESS (1RM) 1)_____2)_____

MUSCULAR ENDURANCE EXERCISES AND LEG POWER EVALUATION

A) VERTICAL JUMP 1)_____2)_____

B) CHINS (MAX 30 SEC) 1)_____2)_____

C) DIPS (MAX 30 SEC) 1)_____2)_____

D) SIT-UPS (MAX 60 SEC) 1)_____2)_____

SPEED AND CARDIOVASCULAR EVALUATION

A) 12-MINUTE RUN 1)_____DATE_____

B) 40 YD DASH 1)_____DATE_____

C) 20 YD DASH 1)_____DATE_____

COMMENTS:

TEAM GIRTH MEASUREMENTS

TWICE A YEAR THE ENTIRE TEAM IS GIVEN A GIRTH MEASUREMENT. THE GIRTH MEASUREMENTS ARE TAKEN AT THE NECK, CHEST, WAIST, HIPS, BUTTOCKS, THIGH, CALF, BICEP RELAXED AND FLEXED, AND FOREARM. THE REASONING BEHIND THE GIRTH MEASUREMENTS IS TO PROVIDE THE PLAYER AND COACHES A CHANCE TO VISUALLY SEE DIFFERENCES IN THE BODY AS A RESULT OF TRAINING. FOR MANY ATHLETES THE GIRTH MEASUREMENTS CAN PROVIDE THAT MOTIVATIONAL INCENTIVE TO TRAIN HARDER. A TAPE MEASURE IN INCHES IS USED TO MEASURE EACH ATHLETE. ONLY THE STRENGTH COACH MEASURES THE ATHLETE. THIS HELPS TO PREVENT TREMENDOUS ERRORS IN MEASUREMENTS.

ESTABLISHING OUR ATHLETES INDIVIDUAL STRENGTH GOALS

EVERY ATHLETE WILL SIT DOWN WITH THE STRENGTH COACH TO DISCUSS HIS GOALS BEFORE ANY TRAINING BEGINS. HIS INDIVIDUAL STRENGTH GOALS FOR EACH OF THE STRENGTH EVALUATION EXERCISES WILL BE ESTABLISHED AT THAT TIME. ALL GOALS ARE REASONABLE, AND ATTAINABLE. AFTER STRENGTH EVALUATIONS THE ATHLETE WILL AGAIN SIT DOWN WITH THE STRENGTH COACH AND SET UP NEW GOALS.

EVERY INDIVIDUAL WILL STRIVE TO INCREASE HIS OVERALL STRENGTH LEVEL BY NO LESS THAN 5%. THIS IS AN INCREASE OF 5% FROM THE SPRING TO SPRING AND SUMMER TO SUMMER EVALUATION PERIODS. THE GOAL OF OUR ATHLETES IS TO RETAIN 80-85% OF THEIR STRENGTH LEVEL DURING THE FOOTBALL SEASON, AND THE SPRING BALL SEASON.

FRESHMEN STRIVE TO INCREASE AS MUCH AS POSSIBLE FROM THEIR SUMMER EVALUATION OR FROM THE MIDDLE OF THE FOOTBALL SEASON EVALUATION. WHICHEVER EVALUATION SHOW THE HIGHEST STRENGTH LEVEL.

UNIVERSITY OF MIAMI MOTIVATIONAL PROGRAM

STRENGTH TRAINING IS TREMENDOUSLY PSYCOLOGICAL. MAINTAINING THE INTEREST, AND ENTHUSIASM OF THE ATHLETES IS EXTREMELY IMPORTANT. STRENGTH TRAINING IS HARD, HARD WORK. IN ORDER TO KEEP THE ATHLETES MOTIVATED THEY ARE ENCOURAGED TO COMPETE IN THE ONE REPETITION MAXIMUM CLUB. THIS CLUB ALLOWS THE ATHLETES TO COMPETE AGAINST EACH OTHER BUT WITHIN THEIR OWN WEIGHT CLASS. A STRENGTH BOARD WAS DEVELOPED TO ILLUSTRATE TO THE PLAYERS, THEIR TEAMS STRENGTH LEVEL, AND THEIR STRONGEST PLAYERS BY POSITION, DURING THE EVALUATION PERIOD.

THE ATHLETES CAN GET INTO THE VARIOUS MAXIMUM CLUBS AND WIN SHIRTS WHICH SHOW HOW MUCH WEIGHT THEY HAVE LIFTED IN ORDER TO MAKE THE CLUB.

THE INFORMATION BOARD WAS DESIGNED TO INFORM THE ATHLETS ABOUT EVERYTHING FROM NUTRITION TO ANABOLIC STEROIDS.

FINALLY THE PRESTIGIOUS "STRENGTH TRAINING ATHLETE OF THE YEAR", WAS DEVELOPED TO HONOR THAT ATHLETE WHO EXHIBITS THE HIGHEST LEVEL OF DEDICATION AND COMMITTMENT TO STRENGTH TRAINING DURING THE YEAR.

WE WANT OUR ATHLETES INTERESTED AND DECICATED TO STRENGTH TRAINING.

UNIVERSITY OF MIAMI PROGRAM CARDS

EACH ATHLETE AT MIAMI WILL BE USING A PROGRAM CARD WHILE STRENGTH TRAINING. THE PROGRAM CARD WAS DEVELOPED SO THAT STRENGTH COACH, PLAYER AND COACHING STAFF WOULD KNOW WHAT WAS HAPPENING DURING THE TRAINING PROCESS. THE PROGRAM CARD CAN BE USED TO SEE THE PROGRESS AN ATHLETE IS MAKING. THE PROGRAM CARD CAN BE A WONDERFUL WAY TO TAKE ATTENDANCE.

THE PROGRAM CARD IS SET UP SO THE ATHLETE CAN RECORD HIS WEIGHT AND REPETITIONS FOR A GIVEN EXERCISE WHILE CONDITIONING A PARTICULAR GROUP OF MUSCLES. THE PROGRAM CARD IS SET UP FOR A TWO AND A HALF WEEK PERIOD. THE MUSCLE GROUPS ARE LISTED FROM THE LARGEST TO THE SMALLEST MUSCLE GROUPS. THE BLOCK WHICH SHOWS THE WEIGHT AND REPETITIONS ALSO REVEALS THE EXERCISE AND EQUIPMENT USED TO PERFORM THAT EXERCISE. THIS IS DONE BY REFERING TO THE CODES. THE EQUIPMENT USES LETTERS AS IT CODES AND THE EXERCISES USE NUMBERS. THE TOP OF THE BLOCK WOULD LOOK LIKE THIS WHEN DOING A BICEP CURL USING NAUTILUS EQUIPMENT.

N,1
WEIGHT
REPETITIONS

IN ORDER FOR THE ATHLETE TO RECORD THE INFORMATION, A QUICK GLANCE AT THE LETTERS WHICH REPRESENT THE EQUIPMENT, AND THE NUMBER NEXT TO THE EXERCISE IS ALL THAT IS NEEDED. IN SOME CASES THE EXERCISE CAN BE PRINTED IN THE CODE BOX.

(CODES) N-NAUTILUS
U-UNIVERSAL
D-DUMBBELL
M-MANUAL
A-AMF
B-BARBELL

STRENGTH, SPEED, AND CONDITIONING

COMPARISON CHART

EVERYTIME AN ATHLETE IS EVALUATED, WHETHER IT BE IN STRENGTH, SPEED, OR PHYSICAL CONDITION, A DETAILED FORM IS COMPLETED FOR THE COACHES TO COMPARE PAST AND PRESENT CHANGES MADE BY THE ATHLETE. THIS FORM IS ESPECIALLY EFFECTIVE WHEN ATHLETES ARE RETURNING FROM SUMMER VACATION OR WHEN THE ATHLETE IS FINISHING THE OFF-SEASON PROGRAM.

FROM THE CHART THE COACHES CAN MAKE DECISIONS AS TO WHERE AN ATHLETE IS STRONG OR WEAK. WHETHER PROGRESS IS BEING MADE. THE BOTTOM LINE TO ALL OF THIS IS POSITIVE RESULTS.

TEAM AGILITY, CARDIOVASCULAR, & STRENGTH CHART

DATE Aug. 13, 1980

NAME	40	20	SHUTTLE RUN	12 MIN RUN	SQUAT OR LEG EXT	BENCH PRESS	MILITARY PRESS	V.J.	CHINS	DIPS	SI UI
CHICKILLO, A.			12.90	6+230	¼370	345	250	25	16	36	6
	* 4.95	** 2.85	**13.13	**6 3/4	** 450	** 340	** 225	** 23 5/8	** 12	** 27	** 6
CLEVELAND, K.			12.30	6+165	260	160	115	25	7	9	3
	*	**	**	**6 3/4	**	**	**	**	**	**	** 4
COMENDEIRO, J.			12.25	6+ 80	450	325	225	25	14	30	4
	*	**	**	**6 3/4	**	**	**	**	**	**	** 5
COOK, C.			13.00	4+340	465	500	275	27	16	43	4
	* 5.05	** 3.02	**	** 5	** 430	** 440	** 255	** 20¼	** 12	** 41	** 4
COOPER, M.			12.35	7+ 10	¼350	400	275	23 3/4	14	26	6
	* 4.70	** 2.77	**	** 7¼	**	** 350	** 255	**	** 12	** 27	** 5
DANIELS, J.			12.75	6	430	340	185	24½	16	30	5
	* 4.89	** 2.70	**	** 5	** 500	** 335	** 225	** 25 1/8	** 10	** 35	** 6
DAVIS, C.											
	* 5.25	**	**	**6+ 30	** 530	** 245	** 185	** 23½	** 13	** 23	** 5
DAVIS, J.			12.52	7+240		205	125	20	15	32	4
	* 5.00	** 2.95	**	** 6	** 135 x23	** 230	** 130	** 20	**20	** 38	** 6
DEAKINS, D.			12.05	7+ 20	285	235	145	23	17	35	6
	* 5.07	** 2.84	**12.69	**6 3/4	** 400	** 225	** 145	** 23½	**14	** 35	** 6
DENNISON, G.			12.55	6+130	330	235	160	24	14	21	4
	* 5.09	** 2.89	**13.36	**6 3/4	** 380	** 225	** 140	** 24	**12	** 21	** 5
DITTHARDT, D.			12.25	6+310	230	185	145	24½	9	11	3
	*	**	**	**6 3/4	**	**	**	**	**	**	**
EVANS, L.			12.70	4+400	330	350	215	26	5	15	4
	*	**	**	**6 3/4	** 450	** 315	** 180	** 27	** 4	**17	** 4
FENTON, J.			13.35	6+ 50	¼425	410	225	20½	18	30	6
	* 5.40	** 2.98	**14.06	**6 3/4	** 530	** 370	** 235	** 19½	**16	** 28	** 6
FERGUSON, J.			12.80	6+110	400	280	175	24	6	23	4
	* 5.35	** 3.00	**13.73	**6+ 80	** 500	** 300	** 170	** 23½	** 5	** 27	** 4
FERNANDEZ, J.			12.88	5+330	350	300	225	24 1/8	11	25	2
	*	**	**	**6 3/4	**	**	**	**	*	**	
FITZPATRICK, T.			12.90	6+ 80	315	385	235	23	11	30	6
	*5.10	** 2.85	**13.74	**6+ 30	** 530	**380	**225	** 24	**10	** 30	** 5
FLANAGAN, T.					365	300	185	24	14	wrist	4
	* 4.75	**	**12.48	**6 3/4	** 450	** 320	** 205	** 24	** 12	** --	** 4

* PREVIOUS RUN OR LIFT * FEBRUARY 13, 1980

USE OF THE COMPUTER

AFTER EACH EVALUATION, ALL THE DATA IS FED INTO THE COMPUTER TO DETERMINE INDIVIDUAL INCREASE OR DECREASE IN STRENGTH. THE COMPUTER TELLS US THE PERCENTAGE CHANGE IN EACH EVALUATION, AS WELL AS THE INDIVIDUALS OVERALL PERCENTAGE CHANGE FOR THE ENTIRE EVALUATION.

NAME _____ HURRICANE PROGRAM CARD SPORT _____ PHONE _____

HIPS & LOWER BACK															
1. Leg Press 2. Hip & Back 3. Parallel Squat 4. Rotations/side to side															
THIGH															
1. Medial Lateral Leg m 2. Leg Extension 3. Hack Squat 4. Front Squat															
BACK OF THIGH															
. Leg Curl . Deadlift . Stiff Legged Deadlift . Real Runner															
PPER BACK															
. Pullover Machine . Pull Down . Bent Arm Pullover . T-Bar Rows															
HEST															
. Armcross/Flys . Chest Press/Bench Press . Incline Press . Close Grip Press															
HOULDERS															
. Lateral Raise . Behind Neck Press . Seated Military Press . Shoulder Shrug															
ICEP/TRICEP															
. Bicep Curl . Tricep Extension															
OREARM															
. Wrist Curls . Reverse Wrist Curls . Roller . Squeezes															
ALVES															
. Toe Raises . Toe Presses . Toe in, out, up . Seated Toe Raises															
TOMACH/NECK															
. Roll-ups . Leg Raises . Bent Knee Sit-ups . 4-Way Neck															

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NAME John Football HURRICANE PROGRAM CARD SPORT Football PHONE

	1/1/83	1/3/83	1/5/83	1/8/83	1/10/83	1/12/83	1/15/83	1/17/83	1/20/83 Heavy	1/22/83 Light Heavy	1/24/83 Light Day	1/27/83 Heavy Day
HIPS & LOWER BACK	SQUAT	SQUAT	SQUAT	SQUAT	SQUAT	SQUAT	SQUAT	SQUAT	SQUAT	SQUAT	SQUAT	SQUAT
1. Leg Press												
2. Hip & Back												
3. Parallel Squat												
4. Rotations/side to side												
THIGH	BENCH	BENCH	BENCH	BENCH	BENCH	BENCH	BENCH	BENCH	BENCH	BENCH	BENCH	BENCH
1. Medial Lateral Leg m												
2. Leg Extension												
3. Hack Squat												
4. Front Squat												
BACK OF THIGH	Leg curl	Leg curl	Leg curl	Leg curl	Leg curl	Leg curl	Leg curl	Leg curl	Leg curl	Leg curl	Leg curl	Leg curl
1. Leg Curl												
2. Deadlift												
3. Stiff Legged Deadlift												
4. Real Runner												
UPPER BACK	MILITARY	MILITARY	MILITARY	MILITARY	MILITARY	MILITARY	MILITARY	MILITARY	MILITARY	MILITARY	MILITARY	MILITARY
1. Pullover Machine												
2. Pull Down												
3. Bent Arm Pullover												
4. T-Bar Rows												
CHEST	Dumbbell Curl	Dumbbell Curl	Dumbbell Curl	Dumbbell Curl	Dumbbell Curl	Dumbbell Curl	Dumbbell Curl	Dumbbell Curl	Dumbbell Curl	Dumbbell Curl	Dumbbell Curl	Barbell Curl
1. Armcross/Flys												
2. Chest Press/Bench Press												
3. Incline Press												
4. Close Grip Press												
SHOULDERS	Tricep Ext.	Tricep Ext.	Tricep Ext.	Tricep Ext.	Tricep Ext.	Tricep Ext.	Tricep Ext.	Tricep Ext.	Tricep Ext.	Tricep Ext.	Tricep Ext.	Pushdowns
1. Lateral Raises												
2. Behind Neck Press												
3. Seated Military Press												
4. Shoulder Shrug												
BICEP/TRICEP	Sit-ups	Sit-ups	Sit-ups	Sit-ups	Sit-ups	Sit-ups	Sit-ups	Sit-ups	Sit-ups	Sit-ups	Sit-ups	Sit-ups
1. Bicep Curl												
2. Tricep Extension												
FOREARM												
1. Wrist Curls												
2. Reverse Wrist Curls												
3. Roller												
4. Squeezes												
CALVES												
1. Toe Raises												
2. Toe Presses												
3. Toe in, out, up												
4. Seated Toe Raises												
STOMACH/NECK												
1. Roll-ups												
2. Leg Raises												
3. Bent Knee Sit-ups												
4. 4-Way Neck												

EVERY WORKOUT IS PLANNED OUT. NOTICE HOW SOME EXERCISES GO UP FASTER IN WEIGHT THAN OTHER ONES

LOOK AT DATE 1/20/83, THAT WEEK JOHN DECIDED TO SWITCH TO A HEAVY DAY, LIGHT HEAVY, LIGHT DAY ROUTINE.

NOTICE HOW JOHN CHANGED HIS ARM EXERCISE, 1/27/83

SOME DAY JOHN MAY EVEN SWITCH TO A SPLIT ROUTINE. AS LONG AS YOUR MAKING SLOW PROGRESS

DO NOT CHANGE ANY THING!!

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NAME _____ HURRICANE PROGRAM CARD SPORT _____ PHONE _____

HIPS & LOWER BACK															
1. Leg Press															
2. Hip & Back															
3. Parallel Squat															
4. Rotations/side to side															
THIGH															
1. Medial Lateral Leg m															
2. Leg Extension															
3. Hack Squat															
4. Front Squat															
BACK OF THIGH															
1. Leg Curl															
2. Deadlift															
3. Stiff Legged Deadlift															
4. Real Runner															
UPPER BACK															
1. Pullover Machine															
2. Pull Down															
3. Bent Arm Pullover															
4. T-Bar Rows															
CHEST															
1. Armcross/Flys															
2. Chest Press/Bench Press															
3. Incline Press															
4. Close Grip Press															
SHOULDERS															
1. Lateral Raises															
2. Behind Neck Press															
3. Seated Military Press															
4. Shoulder Shrug															
BICEP/TRICEP															
1. Bicep Curl															
2. Tricep Extension															
FOREARM															
1. Wrist Curls															
2. Reverse Wrist Curls															
3. Roller															
4. Squeezes															
CALVES															
1. Toe Raises															
2. Toe Presses															
3. Toe in, out, up															
4. Seated Toe Raises															
STOMACH/NECK															
1. Roll-ups															
2. Leg Raises															
3. Bent Knee Sit-ups															
4. 4-Way Neck															

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PAGE NUMBER 12

STRENGTH TRAINING REPORT

RANK	FIRST	LAST	TEST DATE	WEIGHT	VERTICAL JUMP	HALF SQUATS	BENCH PRESS	MILITARY PRESS	DIPS	PULL UPS	SIT UPS
UNKNOWN	LESTER	WILLIAMS	FEB 11-16 80	265	00.00	000	000	000	00	00	61
			JAN 7-16 80	263	00.00	000	000	000	00	00	60
ATHLETES IMPROVEMENT				2	******	***	***	***	**	**	1
PERCENT IMPROVEMENT					0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.66%
**********					ATHLETES OVERALL IMPROVEMENT						
**********					1.66%						
UNKNOWN	STEVE	GRADY	FEB 11-16 80	277	22.50	500	315	210	10	04	38
			JAN 7-16 80	267	22.00	350	265	190	07	02	47
ATHLETES IMPROVEMENT				10	.50	50	50	20	3	2	-9
PERCENT IMPROVEMENT					2.27%	42.85%	18.86%	10.52%	42.85%	0.00%	-19.15%
**********					ATHLETES OVERALL IMPROVEMENT						
**********					14.02%						
UNKNOWN	LEON	EVANS	FEB 11-16 80	000	27.00	450	315	180	17	04	41
			JAN 7-16 80	266	26.38	000	300	165	15	02	43
ATHLETES IMPROVEMENT				****	.62	***	15	15	2	2	-2
PERCENT IMPROVEMENT					2.35%	0.00%	5.00%	9.09%	13.33%	0.00%	-4.66%
**********					ATHLETES OVERALL IMPROVEMENT						
**********					4.14%						
UNKNOWN	FRANK	FRAZIER	FEB 11-16 80	255	20.75	550	400	250	24	09	45
			JAN 7-16 80	255	21.38	435	340	225	20	08	54
ATHLETES IMPROVEMENT				0	-.63	15	60	25	4	1	-9
PERCENT IMPROVEMENT					-2.95%	26.43%	17.64%	11.11%	20.00%	12.50%	-16.67%
**********					ATHLETES OVERALL IMPROVEMENT						
**********					9.72%						
UNKNOWN	CHARLES COOK		FEB 11-16 80	264	00.00	000	440	255	41	12	40
			JAN 7-16 80	247	00.00	000	405	245	37	11	45
ATHLETES IMPROVEMENT				19	******	***	35	10	4	1	-5
PERCENT IMPROVEMENT					0.00%	0.00%	8.64%	4.08%	10.81%	9.09%	-11.12%
**********					ATHLETES OVERALL IMPROVEMENT						
**********					4.30%						

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GRADING SCALE BY INDIVIDUAL BODY WEIGHT

VERTICAL JUMP	SQUAT 1Rm	BENCH PRESS 1RM	OVERHEAD PRESS 1RM	DIPS M30SEC	CHINS M30	SIT-UPS M60SEC
			165-179LBS			
A 33"	A 380 LBS-UP	A 275 LBS-UP	A 185 LBS-UP	A 42	A 23	A 60
B 30"	B 330 LBS	B 250 LBS	B 175 LBS	B 35	B 18	B 50
C 27"	C 280 LBS	C 225 LBS	C 165 LBS	C 27	C 14	C 40
D 24"	D 230 LBS	D 200 LBS	D 155 LBS	D 21	D 10	D 30
E 21"	E 180 LBS	E 175 LBS	E 145 LBS	E 15	E 8	E 20
			180-194 LBS			
A 30"	A 410 LBS	A 300 LBS	A 195 LBS	A 41	A 20	A 60
B 29"	B 360 LBS	B 275 LBS	B 185 LBS	B 27	B 14	B 50
C 26"	C 310 LBS	C 250 LBS	C 175 LBS	C 12	C 10	C 40
D 23"	D 260 LBS	D 225 LBS	D 165 LBS	D 18	D 6	D 30
E 20"	E 210 LBS	E 200 LBS	E 155 LBS	E 13	E 2	E 20
			195-209 LBS			
A 29"	A 440 LBS	A 345 LBS	A 250 LBS	A 40	A 19	A 60
B 27"	B 390 LBS	B 315 LBS	B 225 LBS	B 35	B 13	B 50
C 25"	C 340 LBS	C 285 LBS	C 200 LBS	C 24	C 9	C 40
D 23"	D 290 LBS	D 255 LBS	D 175 LBS	D 15	D 7	D 30
E 21"	E 240 LBS	E 195 LBS	E 150 LBS	E 11	E 2	E 20
			210-224 LBS			
A 28.50"	A 470 LBS	A 355 LBS	A 255 LBS	A 38	A 18	A 60
B 26.50"	B 420 LBS	B 325 LBS	B 230 LBS	B 29	B 12	B 50
C 24.50"	C 370 LBS	C 300 LBS	C 205 LBS	C 24	C 8	C 40
D 22.50"	D 270 LBS	D 275 LBS	D 180 LBS	D 14	D 6	D 30
E 20.50"	E 220 LBS	E 265 LBS	E 165 LBS	E 10	E 2	E 20
			225-239 LBS			
A 27"	A 500 LBS	A 400 LBS	A 270 LBS	A 40	A 17	A 60
B 26"	B 450 LBS	B 375 LBS	B 245 LBS	B 30	B 12	B 50
C 24"	C 400 LBS	C 350 LBS	C 220 LBS	C 22	C 9	C 40
D 22"	D 350 LBS	D 325 LBS	D 195 LBS	D 10	D 5	D 30
E 20"	E 300 LBS	E 300 LBS	E 170 LBS	E 7	E 1	E 20
			240-254 LBS			
A 27.50"	A 530 LBS	A 420 LBS	A 285 LBS	A 36	A 15	A 60
B 25.50"	B 480 LBS	B 385 LBS	B 265 LBS	B 28	B 11	B 50
C 23.50"	C 430 LBS	C 355 LBS	C 235 LBS	C 24	C 7	C 40
D 21.50"	D 380 LBS	D 330 LBS	D 210 LBS	D 18	D 4	D 30
E 19.50	E 330 LBS	E 300 LBS	E 185 LBS	E 6	E 1	E 20
			255-UP			
A 27"	A 560 LBS	A 440 LBS	A 290 LBS	A 35	A 15	A 60
B 25"	B 510 LBS	B 395 LBS	B 270 LBS	B 27	B 10	B 50
C 23"	C 460 LBS	C 365 LBS	C 240 LBS	C 22	C 6	C 40
D 21"	D 410 LBS	D 345 LBS	D 215 LBS	D 16	D 3	D 30

THE GRADING SCALE IS BEING IMPROVED AS OF 1/31/73

TEAM GIRTH MEASUREMENTS - 2/16/79 - 3/23/79

NAME	NECK 1	NECK 2	PECTORALS 1	PECTORALS 2	WAIST 1	WAIST 2	HIPS 1	HIPS 2	THIGH 1	THIGH 2	CALF 1	CALF 2	BICEP RELAXED 1	BICEP RELAXED 2	BICEP FLEXED 1	BICEP FLEXED 2	FOREARM 1	FOREARM 2	BODY WEIGHT 1	BODY WEIGHT 2
KEN MCMILLAN	16 3/8	16	40½	41 3/8	32 3/8	33¼	39	40 1/8	24 3/8	25	14 3/4	15	13¼	13 3/4	15	15 1/8	12	12	189	192
JOHN PEASLEY	16 7/8	16½	43	42 7/8	36 3/8	35	42	41	24½	24 5/8	15¼	15½	14	13½	14 1/8	14¼	11 7/8	11 3/4	195	198
MARK SMITH	16	16¼	40	42 5/8	33 1/8	34	39 3/4	40¼	23 1/8	24 5/8	14½	15 1/8	13½	13 7/8	14½	15	11 7/8	12	186	192
MALCOM SIMMONS		16		41		32 3/8		37 7/8		24		15 1/8		13 3/8		14 5/8		11 3/4		188
PAUL LAFFERTY	16 3/4	16 5/8	40 7/8	42 1/8	33 5/8	33 7/8	39¼	39¼	22½	23 1/8	15 5/8	15 5/8	12 7/8	13¼	13½	14 1/8	11 3/8	11 3/4	186	186
FRED ROBERTS	16 3/8	16 7/8	44	43 3/4	32¼	32 7/8	39 3/8	40 5/8	25	25 5/8	16 3/8	16 7/8	15 3/4	15 3/4	16 3/4	17	13 7/8	13 7/8	206	212
MIKE RODRIQUE	16 1/8	16 7/8	41 1/8	42½	33½	33 1/8	39	39¼	22½	22½	14¼	14½	13 1/8	13½	14 3/8	14½	12	12½	178½	180
GENE COLEMAN		15 3/4		42¼		32 3/4		39 3/4		25 3/8		15 3/8		15		16		12 3/8		180
JIM BIGBIE	17	17	41 1/8	45	35½	34½	41¼	40 3/8	24½	24 7/8	15 1/8	15 3/8	13 3/4	14	14 3/4	15	11 3/4	11 7/8	198	203
MARK RICHT	16	15 5/8	40 7/8	42 3/4	33	32	38 3/4	39 5/8	23 3/8	24 7/8	14 1/8	14 1/8	13	13½	14½	14½	11½	11½	181	180
JIM JOINER		16 1/8		41 1/8		31 7/8		39		24		16		12 7/8		14¼		12 3/8		
DAVID JEFFERSON	16 5/8	16½	41 1/8	42	33	32½	33	32½	43 7/8	44	26¼	26 3/4	16 5/8	16 7/8	14¼	14½	12 7/8	13	220	220
PIERRE HODGES	16 3/4	17 1/8	41 7/8	44¼	33 3/4	33½	38 3/4	39 1/8	25 7/8	26 1/8	16 5/8	16 3/4	15 1/8	16	16 3/4	17	13 1/8	13½	205	206
THOMAS CARNES	16½		43 3/4		38½		44 3/4		26 5/8		16 7/8		15 3/8		16 3/8		13½		248	
JOHN CANEI	16 5/8	16⅞	45 5/8	46¾	38 3/4	39⅛	44	44¾	26 7/8	26⅞	16		14½	15	16	16 1/8	12 7/8	13	240	
BOB NELSON	18		47 7/8		37 7/8		43 1/8		26¼		18		14 7/8		15 3/4		13		240	
CHRIS DAVIS	16½		45		33 5/8		41½		25 3/4		15½		15		15 7/8		12 7/8		226	
STEVE GRADY	17 3/4	17⅞	50¼	50½	41 1/8	40⅜	45 3/4	45	28 3/8	27½	17	17⅝	15¼	15½	16¼	16 1/8	13 3/8	13⅝	267	262
JIM TOULA	17 1/8	16 7/8	43 3/8	44½	33½	33 5/8	40 5/8	40 1/8	24¼	24½	16 7/8	16 3/4	13¼	13 1/8	14 3/8	14 3/8	11 3/4	11½	222	220

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